HARUN YAHYA

THE ERROR OF THE EVOLUTION OF SPECIES

According to Charles Darwin, small genetic differences that arose in living things over the course of time transformed species into new ones—and that is how all of life came into existence.

But research in the intervening 150 years has revealed a major error. Branches of science such as population genetics and comparative biology show that there is no evolutionary family tree as Darwinism maintained. On the contrary, genetic variations within any one species never exceed a specific limit. Therefore, no species evolves into any other. One after another, all examples of supposedly evolving species have all been proven to be mistaken. The theory of evolution, already discredited by such fields as biology and paleontology, is now undergoing an inevitable collapse. This book reveals the theory's hopeless position in the face of the extraordinary variety of life on Earth, and demonstrates that each of the millions of different species on our planet is yet another proof of God's sublime creation.

ABOUT THE AUTHOR

Adnan Oktar, who writes under the pen-name Harun Yahya, was born in Ankara in 1956. He studied arts at Istanbul's Mimar Sinan University, and philosophy at Istanbul University. Since the 1980s, the author has published many books on political, faith-related and scientific issues. Greatly appreciated all around the world, these works have been instrumental in helping many to return their faith in God, and, in many others, to gain a deeper insight into their faith. Harun Yahya's books appeal to all kinds of readers, regardless of their age, race, or nationality, for they focus on one objective: to broaden the reader's perspective by encouraging him or her to think about a number of critical issues, such as the existence of God and His unity, and to live by the values He prescribed for them.


بسم الله الرحمن الرحيم
الله
رسول
محمد

All translations from the Qur'an are from *The Noble Qur'an: a New Rendering of its Meaning in English* by Hajj Abdalhaqq and Aisha Bewley, published by Bookwork, Norwich, UK. 1420 CE/1999 AH.

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ABOUT THE AUTHOR

Now writing under the pen-name of HARUN YAHYA, Adnan Oktar was born in Ankara in 1956. Having completed his primary and secondary education in Ankara, he studied arts at Istanbul's Mimar Sinan University and philosophy at Istanbul University. Since the 1980s, he has published many books on political, scientific, and faith-related issues. Harun Yahya is well-known as the author of important works disclosing the imposture of evolutionists, their invalid claims, and the dark liaisons between Darwinism and such bloody ideologies as fascism and communism.

Harun Yahya's works, translated into 57 different languages, constitute a collection for a total of more than 45,000 pages with 30,000 illustrations.

His pen-name is a composite of the names Harun (*Aaron*) and Yahya (*John*), in memory of the two esteemed Prophets who fought against their peoples' lack of faith. The Prophet's seal on his books' covers is symbolic and is linked to their contents. It represents the Qur'an (the Final Scripture) and Prophet Muhammad (may God bless him and grant him peace), last of the prophets. Under the guidance of the Qur'an and the Sunnah (teachings of the Prophet [may God bless him and grant him peace]), the author makes it his purpose to disprove each fundamental tenet of irreligious ideologies and to have the "last word," so as to completely silence the objections raised against religion. He uses the seal of the final Prophet (may God bless him and grant him peace), who attained ultimate wisdom and moral perfection, as a sign of his intention to offer the last word.

All of Harun Yahya's works share one single goal: to convey the Qur'an's message, encourage readers to consider basic faith-related issues such as God's existence and unity and the Hereafter; and to expose irreligious systems' feeble foundations and perverted ideologies.

Harun Yahya enjoys a wide readership in many countries, from India to America, England to Indonesia, Poland to Bosnia, Spain to Brazil, Malaysia to Italy, France to Bulgaria and Russia. Some of his books are available in English, French, German, Spanish, Italian, Portuguese, Urdu, Arabic, Albanian, Chinese, Swahili, Hausa, Dhivehi (spoken in Mauritius), Russian, Serbo-Croat (Bosnian), Polish, Malay, Uygur Turkish, Indonesian, Bengali, Danish and Swedish.

Greatly appreciated all around the world, these works have been instrumental in many people recovering faith

in Allah and gaining deeper insights into their faith. His books' wisdom and sincerity, together with a distinct style that's easy to understand, directly affect anyone who reads them. Those who seriously consider these books, can no longer advocate atheism or any other perverted ideology or materialistic philosophy, since these books are characterized by rapid effectiveness, definite results, and irrefutability. Even if they continue to do so, it will be only a sentimental insistence, since these books refute such ideologies from their very foundations. All contemporary movements of denial are now ideologically defeated, thanks to the books written by Harun Yahya.

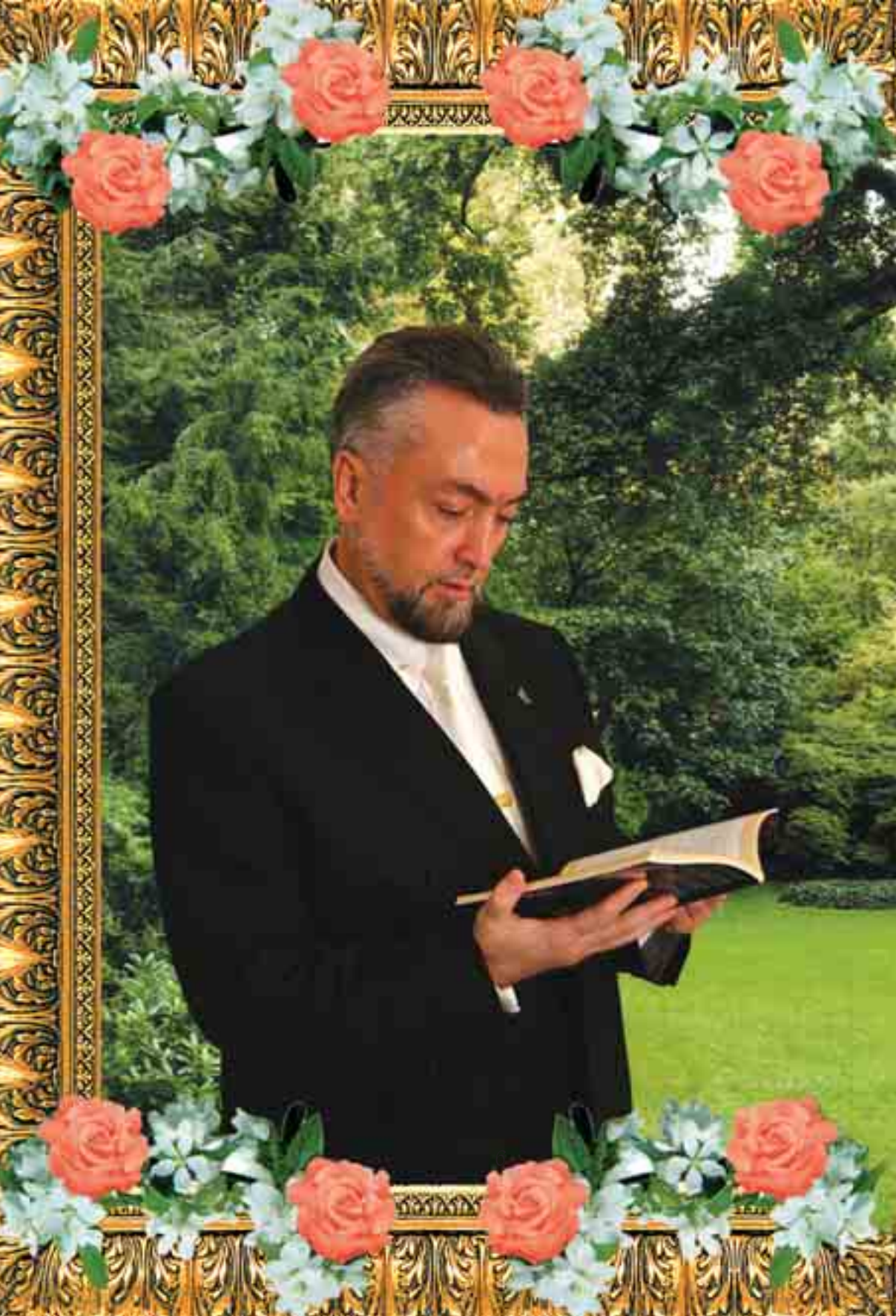
This is no doubt a result of the Qur'an's wisdom and lucidity. The author modestly intends to serve as a means in humanity's search for God's right path. No material gain is sought in the publication of these works.

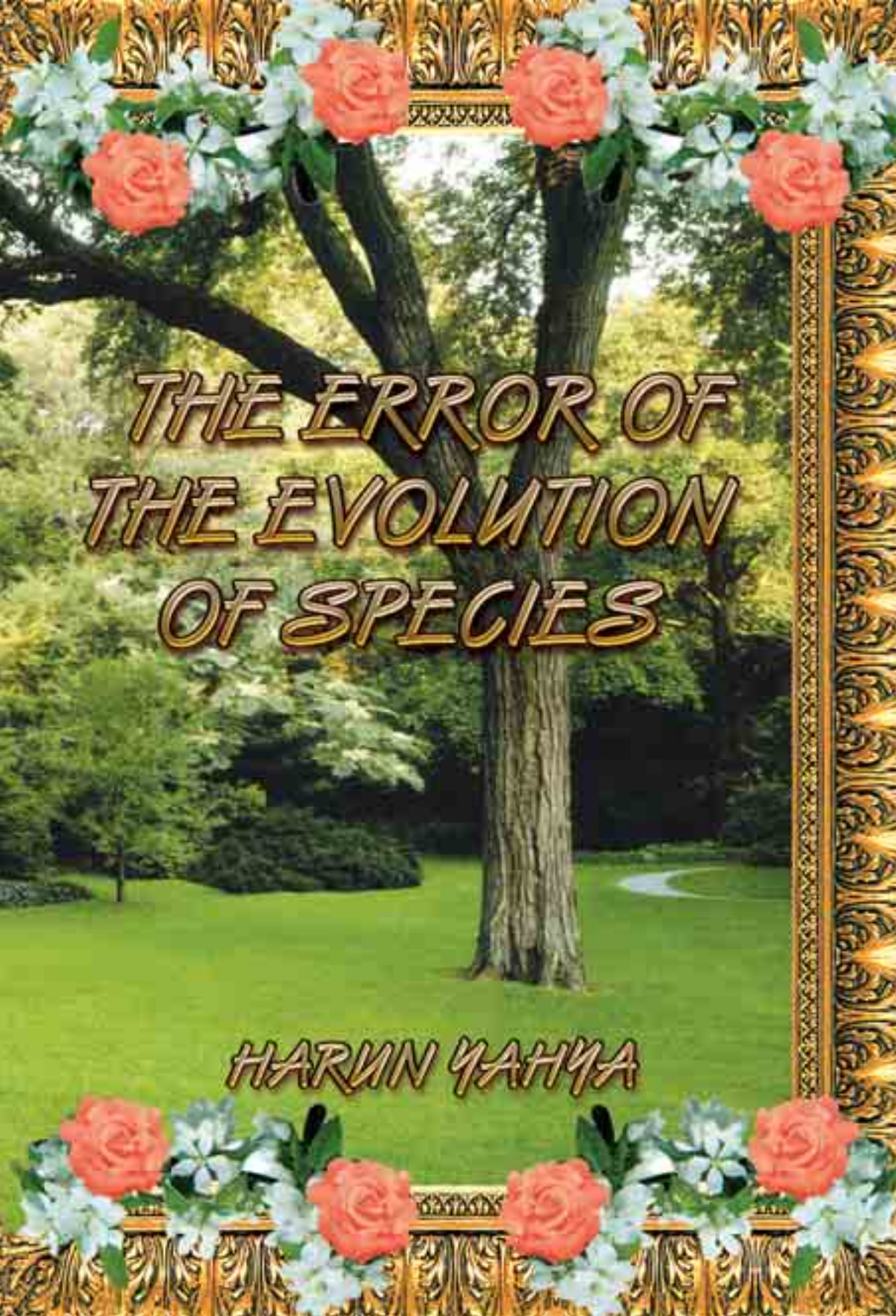
Those who encourage others to read these books, to open their minds and hearts and guide them to become more devoted servants of God, render an invaluable service.

Meanwhile, it would only be a waste of time and energy to propagate other books that create confusion in people's minds, lead them into ideological chaos, and that clearly have no strong and precise effects in removing the doubts in people's hearts, as also verified from previous experience. It is impossible for books devised to emphasize the author's literary power rather than the noble goal of saving people from loss of faith, to have such a great effect. Those who doubt this can readily see that the sole aim of Harun Yahya's books is to overcome disbelief and to disseminate the Qur'an's moral values. The success and impact of this service are manifested in the readers' conviction.

One point should be kept in mind: The main reason for the continuing cruelty, conflict, and other ordeals endured by the vast majority of people is the ideological prevalence of disbelief. This can be ended only with the ideological defeat of disbelief and by conveying the wonders of creation and Qur'anic morality so that people can live by it. Considering the state of the world today, leading into a downward spiral of violence, corruption and conflict, clearly this service must be provided speedily and effectively, or it may be too late.

In this effort, the books of Harun Yahya assume a leading role. By the will of God, these books will be a means through which people in the twenty-first century will attain the peace, justice, and happiness promised in the Qur'an.




THE ERROR OF
THE EVOLUTION
OF SPECIES
HARUN YAHYA

TO THE READER

A special chapter is assigned to the collapse of the theory of evolution because this theory constitutes the basis of all anti-spiritual philosophies. Since Darwinism rejects the fact of creation—and therefore, God's existence—over the last 140 years it has caused many people to abandon their faith or fall into doubt. It is therefore an imperative service, a very important duty to show everyone that this theory is a deception. Since some readers may find the chance to read only one of our books, we think it appropriate to devote a chapter to summarize this subject.

All the author's books explain faith-related issues in light of Qur'anic verses, and invite readers to learn God's words and to live by them. All the subjects concerning God's verses are explained so as to leave no doubt or room for questions in the reader's mind. The books' sincere, plain, and fluent style ensures that everyone of every age and from every social group can easily understand them. Thanks to their effective, lucid narrative, they can be read at one sitting. Even those who rigorously reject spirituality are influenced by the facts these books document and cannot refute the truthfulness of their contents.

This and all the other books by the author can be read individually, or discussed in a group. Readers eager to profit from the books will find discussion very useful, letting them relate their reflections and experiences to one another.

In addition, it will be a great service to Islam to contribute to the publication and reading of these books, written solely for the pleasure of God. The author's books are all extremely convincing. For this reason, to communicate true religion to others, one of the most effective methods is encouraging them to read these books.

We hope the reader will look through the reviews of his other books at the back of this book. His rich source material on faith-related issues is very useful, and a pleasure to read.

In these books, unlike some other books, you will not find the author's personal views, explanations based on dubious sources, styles that are unobservant of the respect and reverence due to sacred subjects, nor hopeless, pessimistic arguments that create doubts in the mind and deviations in the heart.

CONTENTS

INTRODUCTION

When you observe this Earth we live on, you see that it is a wondrous place that meets all your needs in the most perfect way. The bread, cheese, honey, meat, fruits and vegetables you eat with their many different flavors; the water, milk and fruit juices you drink; the air you breathe; your furniture and other objects crafted of wood and glass and plastic; the articles of clothing you wear; fossil fuels such as gasoline, coal and natural gas that provide your heating, transport and all kinds of energy requirements; the cats, dogs, trees and flowers you see when you are out walking; the medicines and remedies you take when you are ill; animals and plants with their totally different structures and features, the dazzling colors and perfect systems that you see on the television; butterflies, birds and fish; all matchless works of art; insects living in unspoiled forests and unexplored regions that you see photographed in magazines and newspapers; roses, lilacs, orchids, lavenders and violets, with their

stunning perfumes and appearances; even this page that you are reading at the moment...

At first, you may not see any connection between all these objects, but take a second look. You will then realize that all living things—as well as man's handiwork— are the result of a glorious variety on Earth. The millions of species of living animals, plants and members of the other three kingdoms (fungi, Protista and Monera) that exist mostly at the microscopic level, constitute an ideal environment for all of your human needs to be met.

The Earth hosts millions of living species, from bacteria and viruses too small to be seen with the naked eye to giant Sequoias, from minuscule beetles and midges to enormous whales. Some 2 million different living species have been identified to date, although it is estimated that there are actually many more. There is practically no place on Earth that is completely devoid of life. Wherever you may go, from thousands of meters beneath the sea surface to the highest mountain peaks, from the burning deserts to the icy poles, you will encounter a variety of living species. The many different environments on Earth offer very different conditions: Oceans, seas, lakes, rivers, coral reefs, marshes, forests, meadows, deserts, rocky outcrops... No matter how different their conditions may be, all play host to a wide range of life forms.

Everyone knows that our a planet contains a teeming variety of life. Yet most people may never have reflected on this astonishing state of affairs, nor considered the great importance of this variety and how it must have come into being. They may never have thought of the need to reflect on these things. Now, putting aside for a moment the perspective stemming from familiarity, try to imagine a world without all these living things you know about.

First, picture an Earth in which there are no terrestrial or marine plants, no forests, and no trees. You will soon come to an obvious conclusion: Were it not for plants that perform photosynthesis every day, the oxygen essential for life would not be replenished, and for that reason, there would be no life on Earth apart from a few bacteria.

And what would the world be like without bacteria, whose species are estimated to number between 300,000 and 1 million, most of whose scientific names are known only to experts? Yet even if we have very little knowledge about bacteria, members of a different world that we cannot see, there is still one indisputable fact: Life without them is inconceivable. Because the production of a large part of the oxygen in the atmosphere, its elemental cycles, the cleansing of the Earth and the breakdown of dead organisms into re-usable substances and many other vital processes are all due to these microscopic creatures.

Vertebrates, mollusks, arthropods, crustaceans and dozens of other plant and animal groups play an important role in the ecological balance in the seas, forests and land. Were any of these to be absent, the processing of dead organisms into new sources of food would be interrupted, the soil would become unproductive, the food chain would be damaged. Habitats would disappear and as a result, all animals, plants and humans would disappear from the face of the Earth.

We could cite more examples, but the lesson is always the same: Humanity could not survive in the absence of other living things. Plants, animals, fungi and bacteria—in short, all the millions of living species—are at the service of human beings. In the face of this miraculous state of affairs, a number of questions spring to mind:

How did the unimaginable variety of life on Earth come into being?

How did these living things that enchant our souls

with their matchless beauty and meet all our needs with the characteristics they possess, come into existence?

How do these millions of living species live in such perfect harmony with their surroundings and with one another?

To whom do the flawless features in each and every species—estimated to number around 100 million—actually belong?

Evolutionists seek to answer these questions, and account for the origin and variety of life, by means of the theory of evolution. They claim that life came into being from inanimate substances, by chance and over the course of time; and that the variety of life in some way arose from single-celled organisms, as the result of natural phenomena and random factors. Many evolutionists have supported these claims ever since Charles Darwin first published his theory, and have offered so-called proofs with which to back them up. However, scientific discoveries have refuted the theory of evolution time and again.

There are innumerable questions to which Darwinism is unable to provide any rational and scientific answers. One of the greatest problems facing evolution is the extraordinary variety of living things, and the origin of these species

on Earth. The realization that there are insuperable genetic barriers between species, the sudden emergence of life forms in the fossil record, and the fact that living things possess organs and systems that are wondrous marvels of design unmatched by even the most advanced 21st century technological progress, have all demolished evolutionist claims.

Rather than admitting their mistakes, most evolutionists have tried to salvage the situation by means of imaginary fairy-tale scenarios. Yet evolutionists have no answer to the question of *speciation*, which Charles Darwin described as the "mystery of mysteries" [1] and to which he long sought an answer. And that despite the intervening 150 years and all their intense efforts!

On the other hand, anyone looking in a sincere, unprejudiced way can clearly see that we live in a miraculous environment. Those bacteria, animals and plants that give rise to such ideal conditions cannot have come into being by chance. The fact is, every species on Earth is the product of a sublime creation. From their proteins and cells to their organs and systems, they carry messages that reveal the glory of their creation. Every living species points to the existence of an Almighty, Omniscient Creator possessed of an infinite artistry and intelligence. That Creator is God, Lord of the worlds.

The fact that God has created all living things and placed them at the disposal of man is revealed in the Qur'an. Some verses in Surat an-Nahl refer to this:

He created the heavens and the Earth with truth. He is exalted above anything they associate with Him. He created man from a drop of sperm and yet He is an open challenger! And He created livestock. There is warmth for you in them, and various uses and some you eat. And there is beauty in them for you in the evening when you bring them home and in the morning when you drive them out to graze. They carry your loads to lands you would never reach except with great difficulty. Your Lord is All-Gentle, Most Merciful. And horses, mules and donkeys both to ride and for adornment. And He creates other things you do not know. The Way should lead to God, but there are those who deviate from it. If He had wished He could have guided every one of you. It is He Who sends down water from the sky. From it you drink and from it come the shrubs among which you graze your herds. And by it He makes crops grow for you and olives and dates and grapes and fruit of every kind. There is certainly a Sign in that for people who reflect. He has made night and day subservient to you, and the sun and moon and stars, all subject to His command. There are certainly Signs in

that for people who use their intellect. And also the things of varying colors He has created for you in the Earth. There is certainly a Sign in that for people who pay heed. It is He Who made the sea subservient to you so that you can eat fresh flesh from it and bring out from it ornaments to wear. And you see the ships cleaving through it so that you can seek His bounty, and so that hopefully you will show thanks. He cast firmly embedded mountains on the Earth so it would not move under you, and rivers and pathways so that hopefully you would be guided, and landmarks. And they are guided by the stars. Is He Who creates like Him who does not create? So will you not pay heed? If you tried to number God's blessings, you could never count them. God is Ever-Forgiving, Most Merciful. (Surat an-Nahl, 3-18)

Obviously the variety of life is a very considerable subject to be dealt with in a single volume. This book describes the general outlines of that variety and what it provides us with. It recalls some of the blessings too many to be listed, even in general terms. In addition, it sets out some of the verses about living things, and indications of the existence and attributes of God, as described in Qur'an:

And in your creation and all the creatures He has spread about there are Signs for people with certainty. (Surat al-Jathiyya, 4)

Harun Yahya
(Adnan Oktar)

One aim of this book is to show how irrational and unscientific are evolutionist claims concerning the richness of life, and to invalidate such Darwinist concepts as *speciation* and *macro-evolution*. Separate chapters are devoted to the Galapagos finches and industrial melanism, which evolutionists portrayed as fundamental proofs at every opportunity. Scientific facts describe how these tales constitute no evidence of evolution at all.

CHAPTER 1.

THE EXTRAORDINARY VARIETY OF LIFE

Life can be found just about everywhere on Earth, whether it's visible or not. Almost no place is without life forms of some kind. A vast number of species live in all habitats, in close harmony with both those environments and with one another. From a drop of sea water to the boundless oceans, from a handful of soil to whole continents, from ice caps to thermal springs, from many meters below the ground to the air you breathe, from deep within our bodies to your own skin...

In addition, the Earth plays host to living things with very different body structures, internal systems, forms of behavior and characteristics: From a bacterium just 1 millionth of a meter in size to a giant sequoia tree some 100 meters (328 feet) high and 2,500 tons (5,512,000 pounds) in weight; from deep-rooted trees to terns that fly 20,000 kilometers (12,430 miles) on their migrations or salmon that

swim for thousands; from a mayfly with a life span of just a few hours to the creosote bush that can live for more than 1,000 years; from the grouper fish that travel singly through the oceans to ants that live in colonies of several millions; from a delicate orchid to insects that are impervious even to radiation...

As Dr. G. David Tilman, Professor of Ecology from University of Minnesota puts it, "The most striking feature of Earth is the existence of life, and the most striking feature of life is its diversity."[2]

To describe the variety and richness of life on our plant, scientists use a special term: *Biodiversity*. This term was adopted from *biological diversity* and includes animals, plants, fungi and micro-organisms—in short, all living things.

The term biodiversity is now widely employed, but contrary to what is often imagined, it has only recently become a familiar term. No matter how far back in history one researches the variety of life, the special term of biodiversity entered scientific circles only in 1986. That year, the concept was born at the Biodiversity Symposium held by the American National Academy of Sciences and the Smithsonian Institution.[3]

Following that, there was a rapid increase in initiatives drawing attention to the importance of biological diversity and the need to protect it. Following the United Nations Conference on the Environment and Regeneration, held in Rio de Janeiro in June 1992, biodiversity became one of the subjects of joint concern for all the countries of the world.

How Many Species Are There on Earth?

In biology, the concept of species is used to describe, understand and reduce biodiversity to a specific number. A living species consists of a population whose members can reproduce only among themselves and that share similar structural and functional characteristics. (This concept will be explored further in Chapter 3, "Evolution's Speciation Dilemma.")

How many species are there on Earth? That question has long intrigued a great many people. Wide-ranging research is now being carried out to answer it. To date, scientific

studies have revealed that no definite figure can be given, only that it is exceedingly large.

The eminent zoologist Edward O. Wilson, one of the scientists who first came up with the concept of biodiversity, is regarded as an authority in the field.[4] A professor at Harvard University, he offers the following analysis:

> *No one knows the number of species of living organisms, but there are probably at least 5 million, and the number could be as high as 100 million. Consider first the question of the amount of biodiversity. The number of species of organisms on Earth is unknown to the nearest order of magnitude. About 1.5 million species have been given names to date, but the actual number is likely to lie somewhere between 10 and 100 million.*[5]

Thomas E. Lovejoy is President of the H. John Heinz III Center for Science, Economics and the Environment and an expert on biodiversity:

While the number of species currently described is on the order of 1.4 million, the big question is how many species are there totally? Current estimates of the total number of species run from 10-100 million.[6]

In a paper, Professor Quentin Wheeler of Natural History Museum, London and Professor Joel Cracraft of the American Museum of Natural History submitted their own estimate of biodiversity:

Despite having accumulated significant knowledge about the world's species over the past 2 centuries, we still cannot provide accurate answers to the simplest of all questions about biodiversity. How many species are there? Estimates vary from 3 to 100 million species.[7]

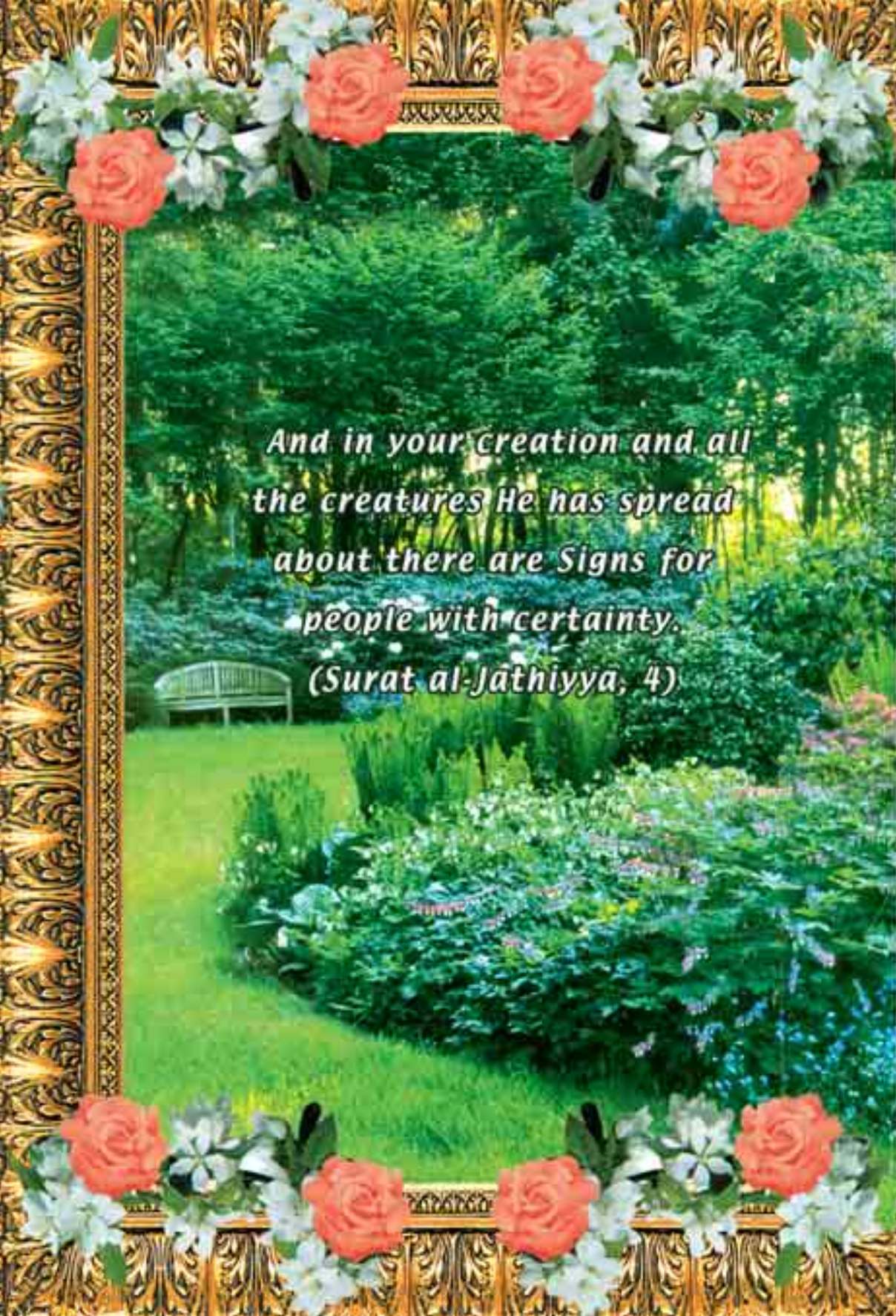
Taylor Ricketts of Stanford University says that: "The Earth is home to over 1.7 million known species, and probably 10 times that number have yet to be discovered."[8]

Alessandro Minelli from the University of Padua states that "Global estimates of existing biodiversity are thus quite uncertain. Figures ranging from 5 to 130 million species have been recently offered for the gross total."[9]

According to *The Encarta Encyclopedia*, the identified and named species number 1.75 million, and some scientists estimate the total number of species on Earth to be around

10 millionand others, more than 100 million.[10] According to the *Encyclopedia Britannica*, many more species are waiting to be identified and named, and there are currently estimated to be between 10 and 30 million living species.[11]

Also, these estimates are for species currently living and do not include those that have become extinct.


And in your creation and all
the creatures He has spread
about there are Signs for
people with certainty.
(Surat al-Jathiyya, 4)

The Scale of Biodiversity

To provide an idea of the impressive richness of micro-organism, fungi, plant and animal species on Earth, a few examples can be cited. According to Professor Wilson's calculation, a catalogue describing merely a million species would fill a 60-meter library shelf.[12]

To view biodiversity from another angle, let us now include species' genetic richness in the calculation. The information controlling the body's functions, encoded in the human DNA molecule in the nucleus of every cell, would fill an encyclopedia containing a million pages. Bear in mind that Man is only one of 10 million species, and a truly extraordinary picture emerges: Were we to write down all the genetic information for all those species, there would not be enough paper in the world to do so.

The number of single-celled eukaryotes (*Protista*), algae, bacteria, fungi, seaweeds, flowering plants, sponges, corals, insects, birds, reptiles, fish and mammals—in short, the number of the categories of all living things—is so huge that some scientists and researchers think that the target of determining and describing all species is unattainable.[13]

Two researchers from London's Imperial College, Andy Purvis and Andy Hector, published an article in *Nature* mag-

Enough information that controls the body's functions has been coded in the cell nucleus of every human being to fill a 1-million-page encyclopedia. Bearing in mind that man is just one species among tens of millions, a truly extraordinary picture emerges.

azine titled "Getting the Measure of Biodiversity." They emphasized the point that computer databases and internet technology have prepared far more comprehensive species lists than ever before; and that trillions of bytes of information have been collected together in data banks. However, all this information is no more than "a small drop in the

ocean," as Purvis and Hector put it.[14]

But the really impressive thing is not just the total number and diversity of species. Within each species, there are also a large number of variations. For instance, all dogs belong to the single species of *Canis familiaris*. But in addition, there are hundreds of diverse breeds with different appearances, sizes, body structures, colors, and forms of behavior.

There are hundreds of breeds of dog, all with different appearances, weights, colors, forms of behavior and characteristics. Yet they are all still the same species.

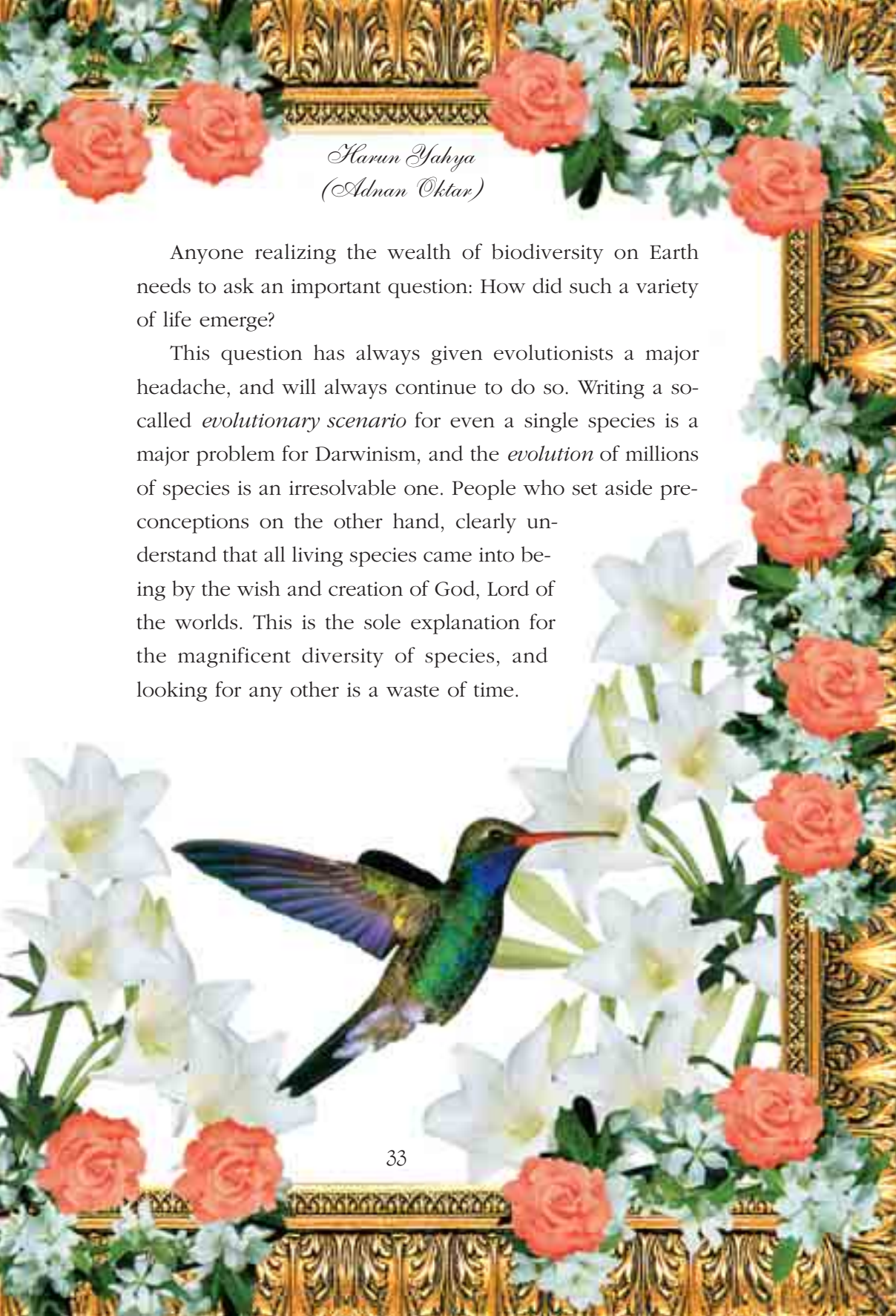
Another phenomenon is that some animal species exhibit different body structures at different periods in their lives. During its pupa, larva and adult stages for example, a butterfly or moth exhibits an enormous variety in terms of structure, size, color, life style, behavior and biological systems.

TABLE OF BIODIVERSITY

	Number of Species Described	Estimated Number of Species
Bacteria	4.000	1.000.000
Fungi	75.000	1.000.000
Eukaryotic single-celled organisms	40.000	300.000
Algae seaweeds	45.000	400.000
Land plants	270.000	300.000
Round worms	25.000	500.000
Crustaceans	45.000	150.000
Arachnids	80.000	750.000
Insects	1.000.000	10.000.000
Mollusks	100.000	200.000
Chordates	50.000	55.000
Others	130.000	300.000
Total (approximately)	**1.900.000**	**15.000.000**

Anyone realizing the wealth of biodiversity on Earth needs to ask an important question: How did such a variety of life emerge?

This question has always given evolutionists a major headache, and will always continue to do so. Writing a so-called *evolutionary scenario* for even a single species is a major problem for Darwinism, and the *evolution* of millions of species is an irresolvable one. People who set aside preconceptions on the other hand, clearly understand that all living species came into being by the wish and creation of God, Lord of the worlds. This is the sole explanation for the magnificent diversity of species, and looking for any other is a waste of time.



Terrestrial biodiversity is found in only 1.4% of the planet's land mass. Locales that are rich in such diversity are at the same time home to rapidly growing human societies.

No matter how much large, attractive animals like birds, reptiles and mammals attract notice, insects are actually the group with the greatest diversity. According to contemporary findings, insects represent over two-thirds of the total number of species on Earth.[15] Approximately 1 million species belonging to this group have been named and described so far.[16]

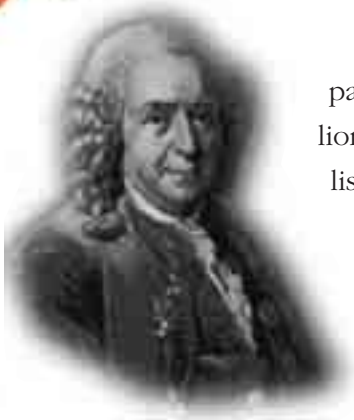
As research deepens, brand- new scientific discoveries are made, and new plants, animals, insects and marine life forms are discovered every year. Every new study sheds light on one unknown aspect of the world's wealth of variety. Therefore, the numbers and proportions in the above table will change over time.

The distribution of Earth's biodiversity is not fully known. One fact observed so far is a general increase in the number of species as one descends from the poles towards the equator. Nothing more definite can be said, mainly because countless ecosystems, on both land and in the sea, are still waiting to be studied. Many regions on Earth have still not been comprehensively examined.

Places particularly rich in terms of species are known as *hot spots*, and found generally in tropical regions and islands. The organization called Conservation International has stated that while land-dwelling life forms comprise only 1.4% of life on Earth, some 25 hot spots contain roughly half of all land-dwelling species.[17]

Researches in the World of Science

In the 250 years since the publication of *Systema Naturae*, a book by Carl Linnaeus, who is one of the most eminent names in the history of science, some 1.75 million species have been named and described—again, only a very small part of the world's total number of species. But these species named by researchers have not yet been collected under a single scientific index. As yet, there is no list containing all the known animals, plants, fungi and microorganisms.[18]



Carl Linnaeus

This state of affairs can be compared to a library with nearly 2 million books, but no ordered index that lists them all.

The lack of a catalog including all species naturally gives rise to some confusion. In order to eliminate this, many scientists are trying to collect the names of all known species under a comprehensive index. For example, the Species 2000 program is one such study, intended to catalog all known species.[19] By the end of 2001, this project, had listed some 250,000 species, and existing global species databases may presently account for some 40% of the total known species.[20]

Other studies are being carried out to identify as yet unknown species. Thousands of scientists from many countries, particularly the USA, are now researching the species on Earth. The total budget set aside for this endeavor is hundreds of millions of dollars. Many institutions whose objective is to discover and understand diversity are active today.

Within the framework of this research, 2001 and 2002 were declared to be International Biodiversity Observation Years, and a special study to which eminent biologists, environmentalists and experts are participating was initiated in

order to obtain more information about species throughout the world.[21] This research is regarded as one of the most important developments in 21st century science. Diana Wall, a professor at Colorado State University and Director of the International Biodiversity Observation Year Management Board, summarizes the importance of this research:

> *Scientists have described about 1.75 million species, but we estimate that there are over 12 million species still to be described. For 99% of species we simply don't have good information on their distribution, abundance, whether they are plentiful or endangered, or their role in providing goods and services that we get from ecosystems, such as renewal of soil fertility, decomposition of waste and purification of water…*
>
> *Exploring biodiversity will unlock many benefits, through discovery of new genes and chemicals that can be used for drugs, to improve crops, or to restore polluted land. Perhaps even more importantly, learning where species are, their role in maintaining healthy ecosystems, and how we can conserve them will be vital for making more informed decisions about our land, rivers and oceans.*[22]

A new study initiated in this field is the All Species project.[23] Eminent biodiversity experts such as Edward Wilson and Peter Raven are involved in this project, whose aim is to name and describe all species, and to prepare an Internet

page for each one. This project is far more complex than other studies being carried out in the world of science, and a much wider-ranging one than the Human Genome project, as was made clear in the 26 October 2001 issue of *Science* magazine. According to All Species Project researchers' estimates, it will cost some $20 billion to establish a data bank of all species.[24] This cost alone is enough to give an idea of the project's size.

It therefore seems certain that increasing research will permit us to discover previously unknown species. Every organism newly discovered, from smallest to the largest, once again shows thinking and rational people the sublime nature of their own creation.

Research into biodiversity will be of great benefit in many fields, from discovering new genetic compounds and chemical substances to be used in drugs to crop improvement and the cleanup of polluted regions.

The Latest Situation

How much do we know about the variety of life on Earth as a result of high-budget and wide-ranging studies in the early 21st century?

Important answers to these questions will once again reveal that biodiversity is an incomparable marvel of creation.

Scientists all agree that we still have a long way to go. As Professor Wilson has put it, "only a tiny fraction of biodiversity on Earth has been explored."[25] Professor Peter Raven, director of the Missouri Botanical Garden, emphasizes that, "the task is one of enormous importance."[26]

Remember, some 1.75 million known species have yet to be set out and classified according to scientific criteria. As stated by Professor Minelli, "There are serious problems, in-

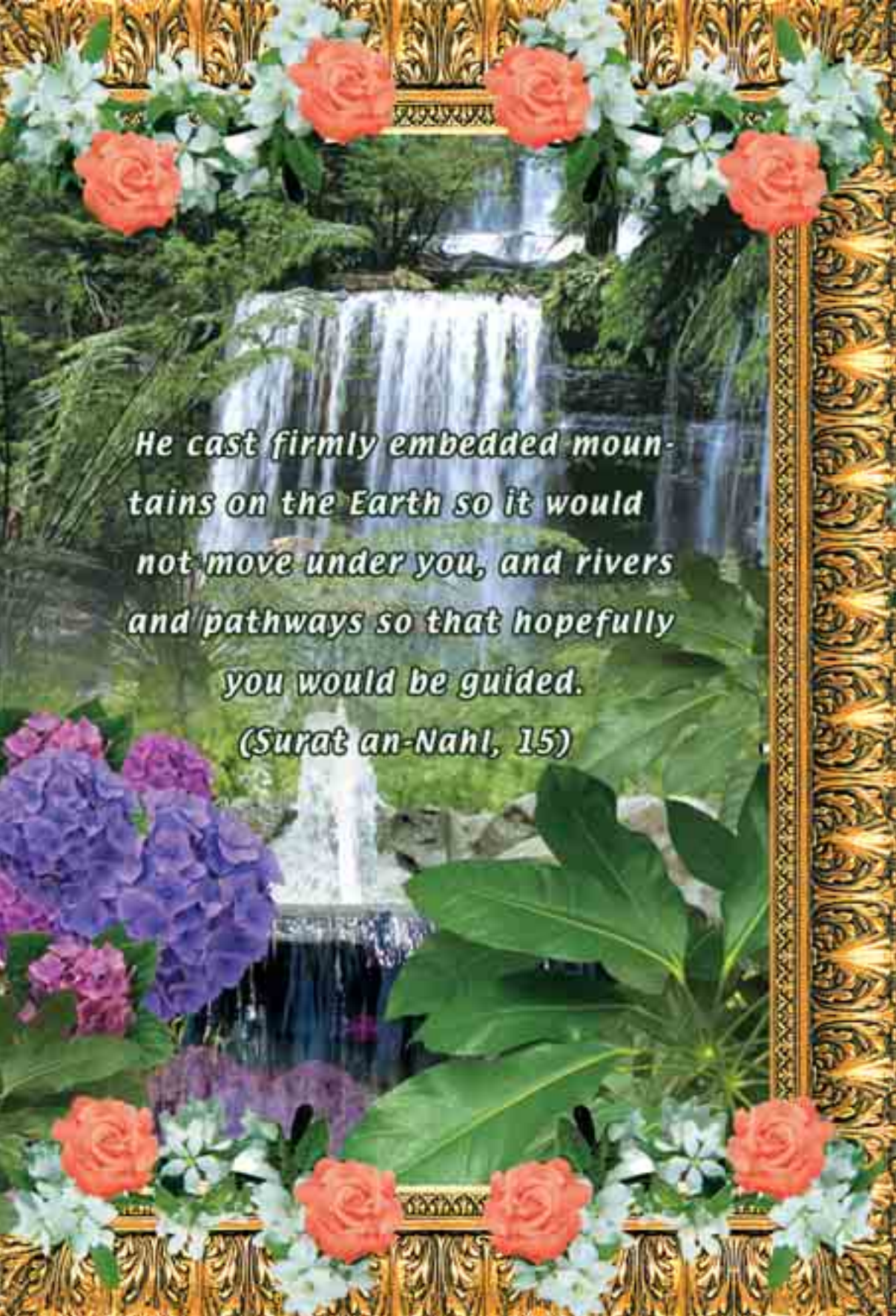
deed, even with that part of biological diversity that has been already described and named."[27] Another researcher, John Alroy of California University, says that in all likelihood, one-fifth of all species names in the scientific literature are invalid.[28]

According to World Resources Institute experts, we know more about the numbers of stars in space than those of the species on Earth.[29] Norman Myers, an eminent Oxford university environmentalist, expresses this in another way:

> *While biodiversity, and indeed life itself, is the key characteristic of our planet, we know more about the total numbers of atoms in the universe than about Earth's complement of species.*[30]

Another scientist to express this is Nigel E. Stork, Director of the James Cook University Tropical Rain Forest Ecology and Management Research Centre. Professor Stork says that the data regarding biodiversity are highly deficient:

> *In recent years biologists have come to recognize just how little we know about the organisms with which we share the planet Earth. In particular, attempts to determine how many species there are in total have been surprisingly fruitless... What these arguments show is how little we actually know about some of the fundamental aspects of the biology and distribution of organisms. We cannot say how widespread species are, we do not know the size of the*

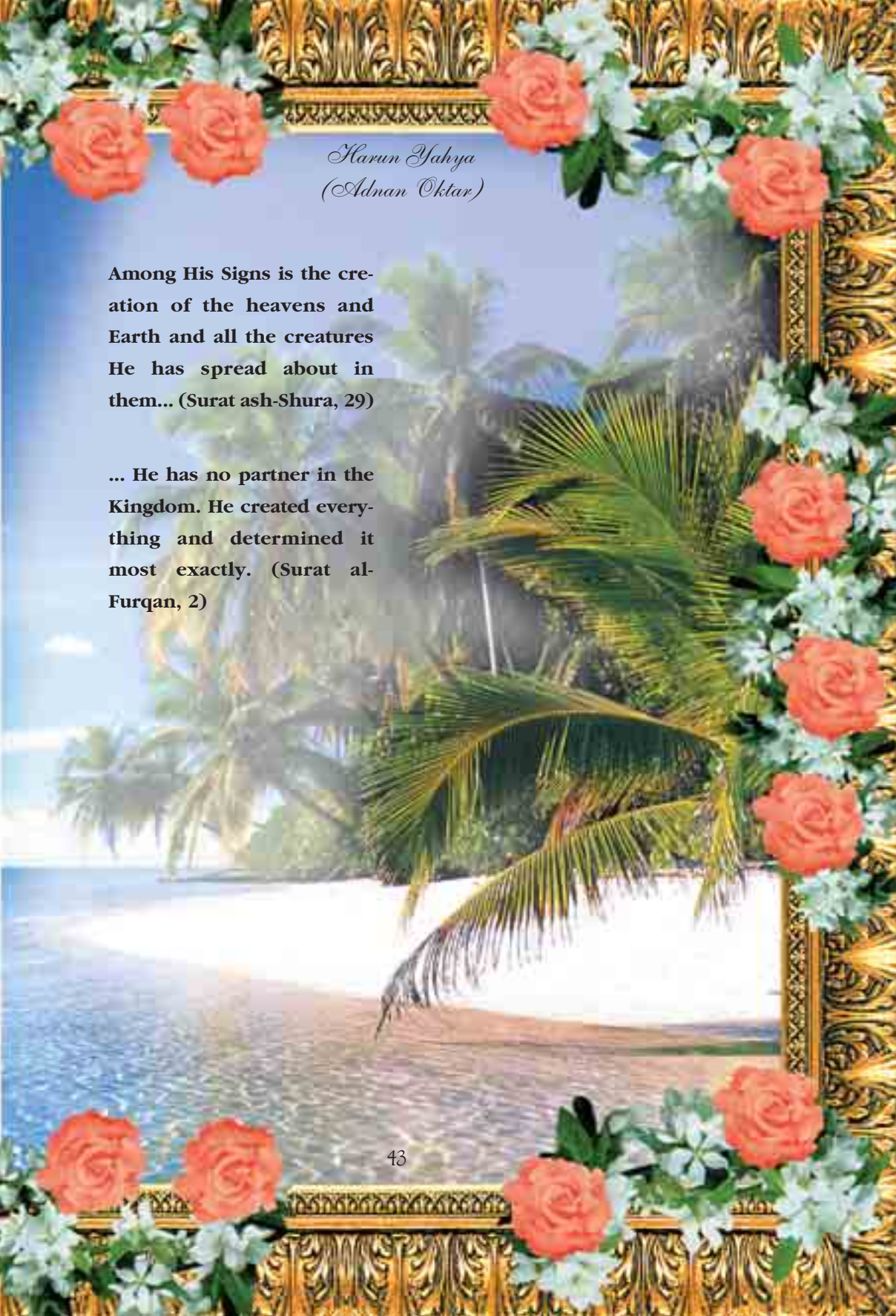

He cast firmly embedded moun-
tains on the Earth so it would
not move under you, and rivers
and pathways so that hopefully
you would be guided.
(Surat an-Nahl, 15)

species pool, and we do not know how specific species are to a particular habitat, type of soil, type of forest, or, in some cases, a species of tree. [31]

To summarize, the distribution, densities, positions in their habitats and levels of genetic variety of most named species are not yet known for certain.[32] Furthermore, the great majority of existing species have not yet been described. Despite all our efforts, we know only a very small part of the magnificent variety of life on Earth.

As you shall see in the chapters that follow, this magnificent richness of species definitively refutes the theory of evolution, which claims that living things came into being as the result of chance, and proves one single fact in a way that permits no doubt: Creation.

The glorious richness of life on Earth is the result of a very special creation that belongs only to God, the Almighty and Omniscient. His creation of all things is revealed in various verses:



Among His Signs is the creation of the heavens and Earth and all the creatures He has spread about in them... (Surat ash-Shura, 29)

... He has no partner in the Kingdom. He created everything and determined it most exactly. (Surat al-Furqan, 2)

Ecosystems and Biodiversity

A specific area's ecosystem includes all the living things in it, as well as their physical surroundings. Lakes, forests, and coral reefs, together with the living things they harbor, are all examples of ecosystems. Lake Baikal in Siberia, for instance, is an ecosystem containing 1,500 plant and animal species.[33]

Each ecosystem has its own unique variety of life. For example, there are dozens of species of trees in a typical North American forest, and hundreds in a South American rain forest.

The point to be emphasized is that any balanced, healthy ecosystem hosts a wide spectrum of living species. A large number of species are linked to one another within a very complex interconnected system, and these play a greater or smaller part in the balanced functioning of the ecosystem as a whole—so much so that sometimes, the absence of a single species can impair an entire system and damage its equilibrium. For example, in the late 19th and early 20th centuries, otters in the Northwest American and Western Canadian coasts were hunted almost to the point of extinction. The otters fed on sea urchins, and when these mammals practically disappeared, sea urchins multiplied

rapidly and began damaging seaweed beds. Damage to the seaweed had a harmful effect on several species of fish and invertebrates in those same waters and led to a decline in their numbers.

Toward the end of the 20th century, when otters were made a protected species, the seaweed began increasing, and balance in the region was re-established.[34]

Many more similar cases have been observed, helping us to understand that species spend their lives in perfect harmony with each other and with their surroundings.

But the term *extraordinarily complex* utterly fails to do justice to the complexity of the system constituted by the glorious variety of life on Earth. To obtain a closer understanding of this, consider the following: Even if all scientists work together, combining all our accumulated technological

Living things exist in complete harmony with each other and with their surroundings. With the disappearance of a single species, the whole ecosystem is disrupted and balance is damaged.

and scientific knowledge and material means, not even the smallest imitation of one of these systems can be produced. Professor Wilson says that it is totally impossible for scientists to collect species beforehand from a rain forest about to be cut down and to introduce them all somewhere else:

> *The biologists cannot accomplish this task, not if thousands of them came with a billion-dollar budget. They cannot even imagine how to do it. In the forest patch live legions of species: perhaps 300 birds, 500 butterflies, 200 ants, 50,000 beetles, 1,000 trees, 5,000 fungi, tens of thousands of bacteria and so on down a long roster of major groups. Each species occupies a precise niche, demanding a certain place, an exact microclimate, particular nutrients and temperature and humidity cycles with specified timing to trigger phases of the life cycle. Many, perhaps most, of the species are locked in symbioses with other species; they cannot survive and reproduce unless arrayed with their partners in the correct idiosyncratic configurations.*

Even if the biologists pulled off the taxonomic equivalent of the Manhattan Project, sorting and preserving cultures of all the species,

they could not then put the community back together again. It would be like unscrambling an egg with a pair of spoons. [35]

From Professor Wilson's statements, you can see that no ecosystem can ever be established using human intelligence and knowledge. Therefore, it is totally impossible for ecosystems to come into being through blind chance, as evolutionists maintain. The following statement by the well-known Professor of Botany Karl Niklas from Cornell University is significant:

I don't think that the ecological patterns that we see surfacing in fossils and living organisms and across the continents are a consequence of chance.[36]

Ecosystems operating in perfect harmony are no doubt manifest proofs of the fact of Creation and the existence of a sublime Creator. At the same time, the Earth's biodiversity and flawless order completely refute Darwinism, which claims that they formed as the result of blind chance and random coincidences.

Let's have a closer look at the fact of Creation in certain ecosystems with a wealth of biodiversity.

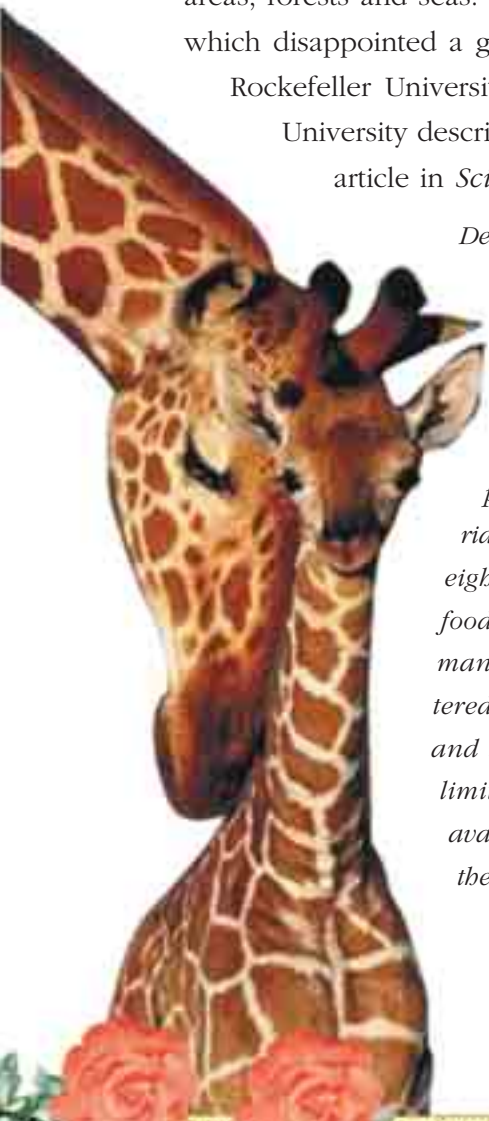
Lessons to be Learned From the Biosphere 2 Project

Our own lives depend indisputably on millions of other living species, flawless balances and perfectly functioning ecosystems. The purification of the water you drink, the production of the air you breathe and the food you eat, the fertilization of agricultural land, the production of raw materials in the objects you use and countless other activities are all carried out by living things. Most people fail to properly appreciate these blessings they obtain from living things that live side by side with them, and most do'nt even feel the need to think about them. Yet to free one from lazy thinking and familiarity, what would happen if the living things that perform these services for us ceased to exist?

Clearly, we, too, would be unable to survive. Even if we mobilized advanced technology and our entire material means, we could never establish the balances and conditions essential to our survival. The latest scientific research to confirm this fact was the Biosphere 2 Project, regarded as the largest and most complex closed study area used in ecological research to date.

This project aimed to establish an ecosystem that would provide a habitat for eight people, plants and animals for a

two-year period in a closed area of 13,000 square meters (15,550 square yards) in size.[37] The system contained "rooms" resembling such natural ecosystems as agricultural areas, forests and seas. However, the project was a failure, which disappointed a great many scientists. Joel Cohen of Rockefeller University and David Tilman of Minnesota University described the result of this initiative in an article in *Science* magazine:



Despite the enormous resources invested in the original design and construction (estimated at roughly $200 million from 1984 to 1991), and despite a multimillion-dollar operating budget, it proved impossible to create a materially closed system that could support eight human beings with adequate food, water, and air for 2 years. The management of Biosphere 2 encountered numerous unexpected problems and surprises, even though almost unlimited energy and technology were available to support Biosphere 2 from the outside. [38]

Some of the *unexpected problems*

that emerged in the facility between 1991 and 1993 and made life impossible included a drop in oxygen levels to 14%, sudden rises in the carbon dioxide concentration, a rise in the amount of nitric oxide sufficient to cause brain damage, the disappearance of most of the living species (including 19 of 25 vertebrate species and all pollinators brought into the enclosure, which would have ensured the eventual extinction of most of the plant species as well), water pollution, excessive algae, and population explosion of crazy ants, cockroaches and katydids.[39]

Despite Biosphere 2's unique design and the impressive resources employed in its construction, it was impossible for its closed system to recreate the balances that have been operating flawlessly on Earth for millions of years. Therefore, it was not possible to produce a self-sustaining environment habitable by human beings, plants and animals.

In short, despite all the efforts made, it proved impossible to produce in the closed Biosphere 2 system the balances that have been operating for millions of years on Earth, and thus it was impossible to establish an environment habitable for humans, animals and plants.

In conclusion, Professor Cohen and Professor Tilman summarized the lesson to be learned from the project:

> *No one yet knows how to engineer systems that provide humans with the life supporting services that natural ecosystems produce for free.*[40]

The Rain Forests

Whenever tropical rain forests are mentioned, the first things that come to mind are dazzling butterflies, unusual-looking insects, and large, broad-leaved, trees. Rain forests are found in regions close to the equator and consist of dense trees that are always green and very tall. These forests' most important feature is the extraordinary number of plant and animal species they contain. A tropical rain forest, millions of square kilometers in size, is home to a wide variety of species.

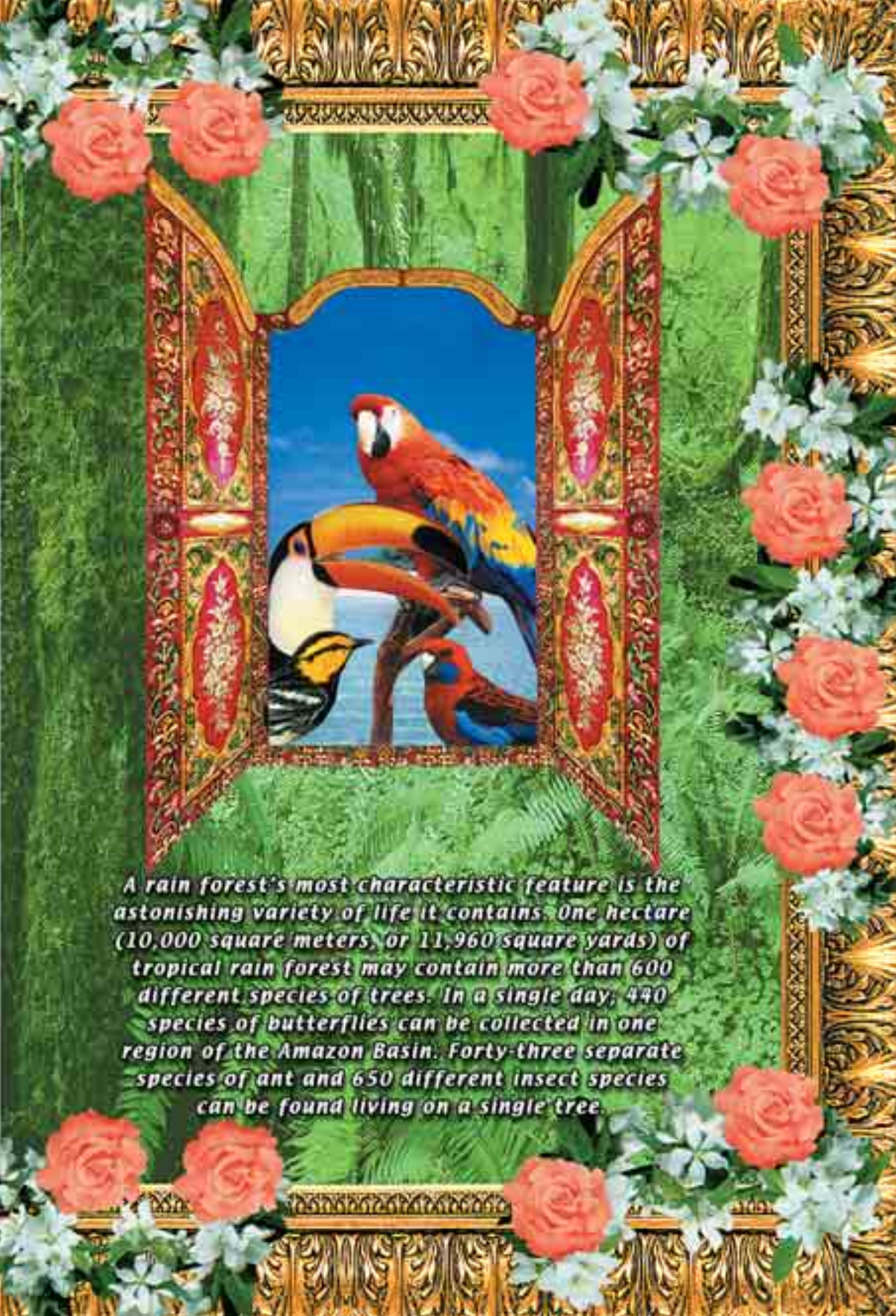
Around 250 years ago, the first European researchers to

set foot in the rain forests of South America were astonished by the variety of life they encountered. Each new study again revealed the diversity of plant and animal species.

A rain forest in the tropical belt has very different characteristics from those of other forests. For one thing, underneath the very tall trees 50 meters (164 feet) high, there are medium-sized ones, such as palm, cedar, mahogany and figs. The trunks and branches of these are covered in bright orchids, cacti, ferns and mosses. The lowest layer in the forest, the grass layer, consists of a dense vegetation covering and hosts a great variety of insect, bacteria and fungi species. In short, a rain forest's most characteristic feature is the variety of life that so amazes us.

Rain forests comprise just 7% of the land surface, yet contain more than 50% of the plant and animal species on Earth. Researchers also state that this last percentage may change as we learn more about biodiversity. The well-known Smithsonian Institute researcher Thomas Lovejoy makes a very apposite statement: "The larger point is that the more people look at the tropical forest in different ways, as Terry Erwin has done, the more biodiversity there seems to be."[41]

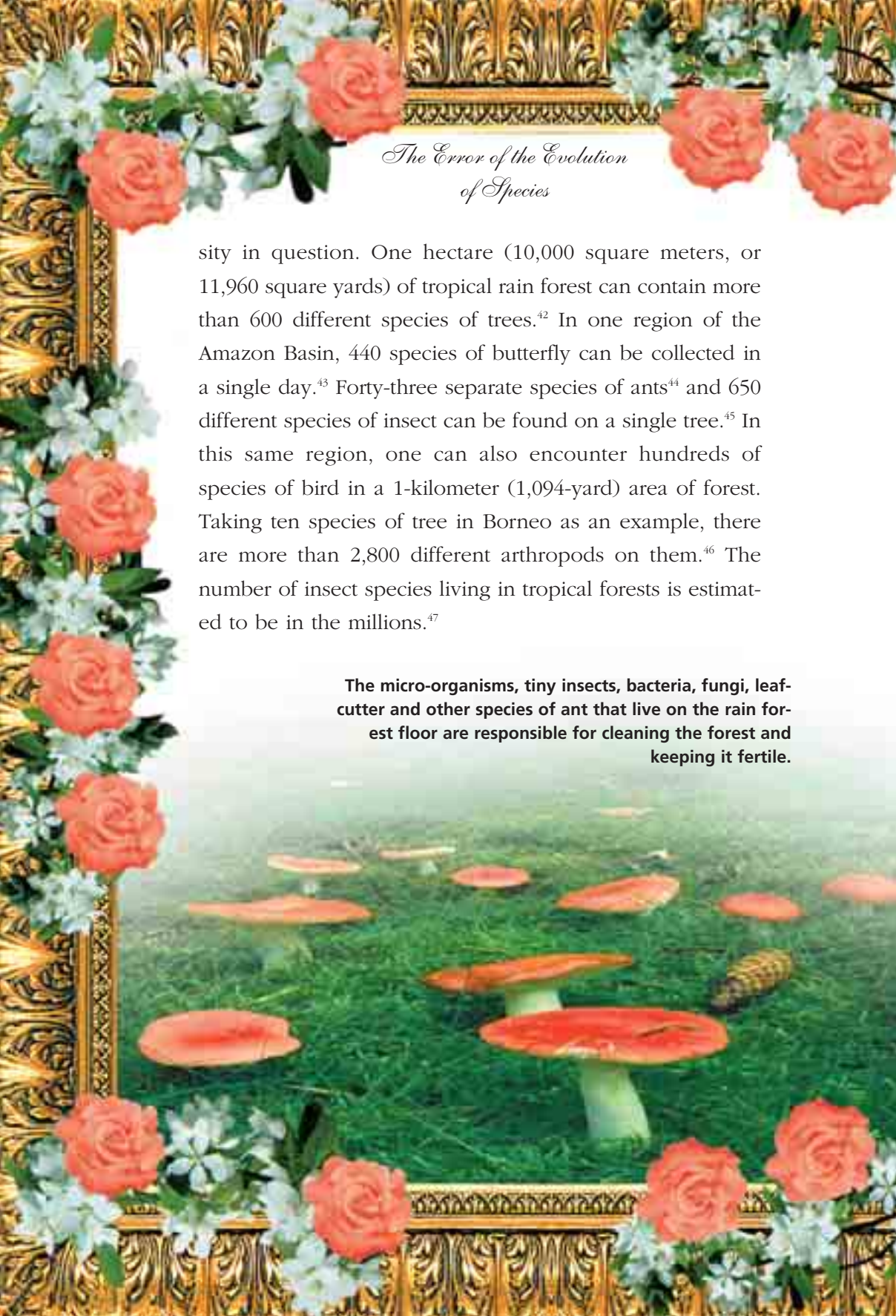
So that you can envision the diver-



A rain forest's most characteristic feature is the astonishing variety of life it contains. One hectare (10,000 square meters, or 11,960 square yards) of tropical rain forest may contain more than 600 different species of trees. In a single day, 440 species of butterflies can be collected in one region of the Amazon Basin. Forty-three separate species of ant and 650 different insect species can be found living on a single tree.

sity in question. One hectare (10,000 square meters, or 11,960 square yards) of tropical rain forest can contain more than 600 different species of trees.[42] In one region of the Amazon Basin, 440 species of butterfly can be collected in a single day.[43] Forty-three separate species of ants[44] and 650 different species of insect can be found on a single tree.[45] In this same region, one can also encounter hundreds of species of bird in a 1-kilometer (1,094-yard) area of forest. Taking ten species of tree in Borneo as an example, there are more than 2,800 different arthropods on them.[46] The number of insect species living in tropical forests is estimated to be in the millions.[47]

The micro-organisms, tiny insects, bacteria, fungi, leaf-cutter and other species of ant that live on the rain forest floor are responsible for cleaning the forest and keeping it fertile.



These numbers do not represent the total number of living organisms in a particular habitat, just the number of species. Another astonishing fact is that in tropical rain forests, according to some experts, millions or even tens of millions of living things live in complete harmony and co-operation..

Soil in tropical rain forests is generally thought of as being rich and fertile. Recently, however, it has been realized that this is not so. In terms of nutrients, the soil is poor, compared to that of other forests.[48] How did such a great variety of plants emerge from poor soil? The answer lies in the perfection of the rain forest ecosystem.

The biodiversity in tropical forests has been created as a whole, and is based on very delicate, complementary balances. For instance, consider the micro-organisms, minute insects and fungi living on the forest floor. Their dimensions are very small in comparison to the trees and animals, yet they are responsible for cleaning the forest and making the soil productive. They break down dead animals and leaves and branches that fall from the trees, recycling them back

into the ecosystem. In this way, nothing is wasted. Professor Wilson describes the importance of this mechanism:

The leafcutters and other kinds of ants, together with bacteria, fungi, termites and mites, process most of the dead vegetation and return its nutrients to the plants to keep the great tropical forests alive. [49]

We still do not know how many millions of species live in tropical rain forests, but we do know that every species has a different task and importance in these ecosystems, and that these species live together in harmony. This is expressed in an article about Amazon rain forests in the Turkish magazine *Bilim ve Teknik* ("Science and Technique"):

The continuity of species in this Amazon Basin's complex ecosystem is based on their close dependence on one another. Every species, be it plant or animal, contributes to part of this system with its millions of components. Trees, the epiphytes on trees, fungi, monkeys, vampire bats, eagles, parrots, the crocodiles, piranha fish and lilies in the river, and micro-organisms invisible to the naked eye all make different contributions to the giant ecosystem in which they live. There are very delicate bal-

ances here. The rain forest exists together with all these species. The disappearance of a single species will damage several of these balances. [50]

Indeed, such great harmony and interdependence exist among some species in the forest that one cannot survive in the absence of the other. Some 90% of the trees in the rain forest need animals to spread their seeds,[51] while insect larvae, caterpillars, birds and other animals feed on the seeds of these trees. For example, species of fig tree and fig fly species are so interdependent that either cannot survive in isolation from the other. In the absence of fig flies, fig trees cannot fertilize themselves, and in the absence of fig trees, fig flies are deprived of their natural habitat. There is a different species of fig fly for every one of the more than 900 species of fig tree in tropical regions![52]

Traits such as the fig fly's body and mouth structure and the flower's structure and reproductive organs, as well as the insect's flights and the times when the flowers open are in complete harmony. Accounting for this utter dependence between species has always been

difficult for Darwinism. For this phenomenon, there is only one explanation: The harmony between plants and animals is a marvel of Creation. There is no chance of this system developing over time through small random changes and the mindless mechanisms of evolution.

Take, for example, the harmonious existence of the hawk moth *Xanthopan morganii* and one species of Madagascar orchid. To collect nectar, this moth extends its proboscis, some 30 to 35 centimeters (11 to 13 inches) in length, around 30 centimeters (11 inches) deep into the body of the orchid, and thus enables it to be fertilized.[53] In order to reach and fertilize the ovary at this depth, the moth needs a proboscis of just such a length, In other words, the two species must be totally compatible with one another.

This represents a major dilemma for evolutionists, because it is impossible for these two different species to have undergone a parallel process of evolution, much less at the same time.

Let us assume that the ancestors of the Madagascar orchid and the *Xanthopan morganii* moth had had, respectively, much shorter nectary and a much shorter proboscis. (This is the assumption that must be made, according to the theory of evolution.) In that case, both species would have extended their parts simultaneously. The hawk moth and

the orchid, would each have been exposed to mutations that simultaneously extended the length of their proboscis and nectary. Of course, such mutations would have had only advantageous effects on these two life forms (and beneficial mutations have never been observed). They would have to out-multiply other members of their species that had not undergone mutation, and this supposed process of natural selection would have to continue completely by chance, but without error, for millions of years.

To believe that is like believing that a lock and the key that opens it each came to be independently, but in a manner totally compatible with each other. Yet clearly, reason requires us to accept that two structures completely compatible with one another are both examples of simultaneous creation. To put it another way, reason requires us to accept that the orchid and the moth were created in harmony with each other.

Another example of the flawless harmony among tropical life forms can be seen in those regions known as flood forests, found along the shores of the Amazon and its tributaries. When the rain is heaviest, they are flooded, and during this period, a marvelous phenomenon takes place. Fish come to eat the fruits that fall into the water and distribute the seeds of those fruits of several species of tree.

Clearly, the variety of species in the rain forests are of

great importance to the native peoples living there. But what importance can they have for the billions of humans who do not live in such regions? Scientists have provided the answer: The plants and animals in these tropical forests are of vital importance to every human on Earth. They are described as "the Earth's lungs" because of the way they absorb carbon dioxide from the atmosphere during photosynthesis and give off oxygen. Rain forests play a major role in the circulation of carbon and oxygen in the atmosphere, the global climate system, water circulation on Earth, and in many other natural balances. In addition, they represent a splendid source of new foods, products and medicines.

The magnificent variety of life in the rain forests is a major headache for Darwinism. The situation does not even permit evolutionists to offer any of their tall tales. Indeed, evolutionist researchers admit that they do not know the reason for the tropical rain forests' glorious biodiversity.[54] Yet very evidently, God has created the single-celled organisms, plant and animal species in these forests, just as He has created all living things. If evolutionists wish to find a way out of the dead end they find themselves in, they must accept this fact.

To grasp just how irrational the evolutionist claim is, imagine a large factory that manufactures dozens of different products—a wide range of technological devices such

Say: "Have you thought about your partner deities, those you call upon besides God? Show me what they have created of the Earth; or do they have a partnership in the heavens?" Have We given them a Book whose Clear Signs they follow? No indeed! The wrongdoers promise each other nothing but delusion.

(Surah Fatir, 40)

Tropical rainforests are often called "the lungs of the world" because during photosynthesis, their countless plants absorb carbon dioxide and release oxygen.

as televisions and computers. Now, could these various products all have been invented by chance, with no conscious intervention? Could these devices, products of advanced technology, gradually form through the effects of such natural phenomena as the sunlight, wind, and lightning?

Such an event is of course impossible; both a factory and the devices it manufactures result from the design and planning by engineers and various other experts. Now consider the rain forests, home to tens of millions of different species, all with systems far more complex than those in any electronic devices available today. Such an environment, consisting of life forms that have lived together in harmony and co-operation for millions of years, could not come into being spontaneously, right down to the very finest detail, as evolutionists claim. The sublime intelligence here belongs to God, the Lord of the worlds..

Coral Reefs

Coral reefs come about gradually as dead corals, algae and crustaceans accumulate in different layers. They are found in tropical seas and can spread over rather large areas. In addition to their wealth of color and form, coral reefs harbor a variety of life, comparable to that in the rain

forests. Many marine creatures, from planktons too small to be seen with the naked eye to sharks up to 6 meters (19 feet) long inhabit coral reefs.

Tens of thousands of widely different species live on coral reefs: Spotted, striped, brightly colored fish with striking patterns, fish that live in colonies, bright-hued corals, crustaceans with different appearances, eye-catching sea plants, sponges unique to coral reefs, mussels, oysters, sea urchins, crabs, starfish, micro-organisms, invertebrates...

At 2,000 kilometers (1,243 miles) long, Australia's Great Barrier Reef is the world's largest structure composed of living organisms. It plays host to 2,000 different species of fish, 350 species of coral, and 4,000 species of mollusks.[55] But these are only the numbers of species identified to date. New species of animal and single-celled organisms are discovered every year.

According to Marjorie Reaka-


According to Marjorie Reaka Kudla, Professor of Zoology at Maryland University, the number of described species in the world's coral reefs is 93,000, and the estimated number should be about 950,000. It is Almighty God Who creates every one of these life forms together with their perfect systems.

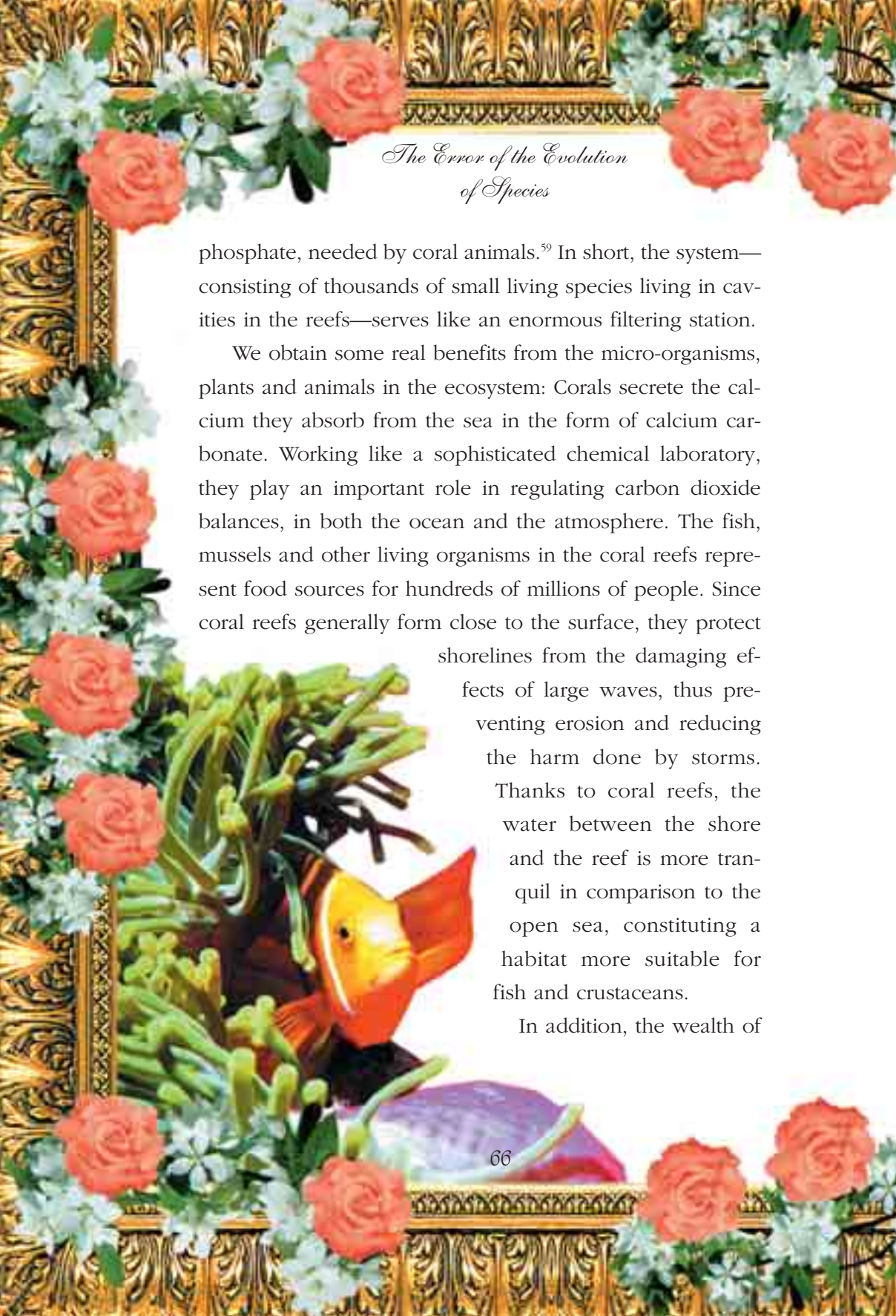
Kudla, Professor of Zoology at Maryland University, the calculated number of described species on coral reefs is 93,000, and the estimated number should be about 600,000-950,000 species.[56]

In the same way as rain forests, coral reefs are full of living things created in such a way as to complement one another and meet each other's needs. For example, coral polyps live shared or symbiotic lives with single-celled algae *(zooxanthellae)* inside their tissues and green algae on their outer surfaces. Coral polyps take some of the nutrients produced by algae through photosynthesis. Algae, on the other hand, obtain the nutrients they need from the coral polyps. At the same time, the polyps provide a safe place for the algae to live.

Coral reefs are generally found in waters classified as being poor in terms of nutrients.[57] The question of how the reefs managed to grow in such waters has long been of great interest.[58] According to the latest research, one reason for the wealth of species on the reefs is that these animals work together in harmony and co-operation. One study published in the 18 October, 2001 edition of *Nature* magazine, revealed the importance of the species of sponges, mussels and ringworms living in the cavities in the reefs. By filtering vegetable plankton, these organisms, most of which are very small, secrete substances such as ammonia and

phosphate, needed by coral animals.[59] In short, the system—consisting of thousands of small living species living in cavities in the reefs—serves like an enormous filtering station.

We obtain some real benefits from the micro-organisms, plants and animals in the ecosystem: Corals secrete the calcium they absorb from the sea in the form of calcium carbonate. Working like a sophisticated chemical laboratory, they play an important role in regulating carbon dioxide balances, in both the ocean and the atmosphere. The fish, mussels and other living organisms in the coral reefs represent food sources for hundreds of millions of people. Since coral reefs generally form close to the surface, they protect shorelines from the damaging effects of large waves, thus preventing erosion and reducing the harm done by storms. Thanks to coral reefs, the water between the shore and the reef is more tranquil in comparison to the open sea, constituting a habitat more suitable for fish and crustaceans.



In addition, the wealth of

genetic material from the wide variety of life on coral reefs is used in medical research and in the development of new drugs. Douglas Chadwick, a biologist and writer for *National Geographic* magazine, expresses some of these benefits we enjoy from the coral reefs:

> *Humanity's ties to the creatures living around coral reefs may multiply as medical research taps more of the organisms at home there. Some have already yielded compounds active against inflammations, asthma, heart disease, leukemia, tumors, bacterial and fungal infections, and viruses, including HIV. Studies found that chemicals used by sea slugs and certain sponges to repel fish also work on land as insecticides. Screening the venom of tropical cone snails for pharmaceutical properties turned up a possible nonaddictive substitute for morphine. Sea whips, related to true corals, offer a potential painkillers as well, while coral skeletons themselves are being investigated as substrate for bone grafts.* [60]

Each of the species living on coral reefs has been equipped with extraordinary systems and characteristics. For instance, some fish and other creatures have more color receptors than human beings, and therefore perceive colors better than we do.[61] Most coral reef fish are able to change their colors to a certain extent, and some species

can do so as quickly as a chameleon.[62] The large-eyed sea bass and squirrel fish are able to hunt at night, or at depths where no daylight penetrates, thanks to their sensitive eyes. Puffer fish defend themselves by inflating their stomachs like a balloon and erecting their spines.[63] Parrot fish camouflage themselves at night by covering themselves with a gelatinous sheath; they feed on algae by breaking off pieces of coral with their powerful, beak-like mouths.[64] Scavenger fish and cleaner shrimp live off parasites on the fishes' skin. These, of course, are only a few of the perfect systems and flawless cooperations found among life forms on the reef.

Some reef-living fish species are able to camouflage themselves very well, thanks to their colors that closely

Parrot fish camouflage themselves at night by encasing their entire bodies with a gelatinous substance.

Porcupine fish protect themselves by distending their stomachs like balloons and erecting the spines on their skin.

match those of their surroundings. Species such as angel fish and butterfly fish possess very striking colors. Since they can easily be detected by predators, one would expect them to soon become extinct. But these fish survive despite their striking colors thanks to their own particular methods of defense. Evolutionists are unable to account for this state of affairs, which is the exact opposite of Darwinist expectations.

One evolutionist researcher studying this is the marine biologist Justin Marshall of Queensland University. In an article, "Why Are Reef Fish So Colorful?" in *Scientific American* magazine, Dr. Marshall describes this mystery "as tantalizing as it is beautiful." [65]

In fact, there is no mystery here at all, nor anything disappointing, only history being repeated. Darwin himself described as "trifling particulars of structure [that] often make me very uncomfortable. The sight of a feather in a peacock's

tail, whenever I gaze at it, makes me sick!"[66] These same difficulties are also faced by his followers. In short, the variety of life on the reefs, animals with incomparable features and the prefect harmony among species represents a nightmare for Darwinists. To wake up from that nightmare, they need to admit that God created the reef fish with their stunning colors and appearances.

People who keep marine aquariums as a hobby know how very difficult it is to feed tropical reef fish and corals. The main reason is the need to constantly replicate these creatures' reef habitats. In a marine aquarium, the salinity, temperature, pH level, light, oxygen level and chemical combinations in the water need to be kept in balance. Such corals and fish in are prone to be affected by even small changes in their aquarium environments. The organisms will die unless the ideal conditions are maintained and constantly regulated by technological equipment.

Now, bearing in mind the difficulty of running a marine aquarium containing just a few species of coral and fish: Could the tens of thousands of species living on the coral reefs have come into being spontaneously, or by chance? Could their striking colors, impressive hunting and defense systems, unique body structures, sense organs, systems and genetic information be the work of coincidence? Could the reef environment—in which the plants, animals, plankton

and micro-organisms have lived in harmony and order for millions of years—have come about without a superior and conscious intervention?

Of course these events are impossible. Anyone able to reason can see their illogicality. Reef creatures with their amazing characteristics demonstrate the sublimity and glory of their Creation; they reveal the infinite artistry and omniscience of God, their Creator.

Deep-Sea Creatures

While walking along the seashore, you must have noticed seaweed and various sea plants.. These and some microscopic planktons produce their own nourishment by way of photosynthesis. This represents the first step in the marine food chain. However, sunlight cannot penetrate deeper than 100 meters (328 feet) in sea water, and the deepest ocean depth is 11,000 meters (36,090 feet) beneath the surface, with an average depth of 5,000 meters (16,400 feet). There is no possibility of photosynthesis taking place there, under conditions of high pressure per square inch, a low temperature in the region of 2 to -4 degrees Celsius (35 to 39 degrees Fahrenheit), and constant darkness. The only food sources consist of waste products and organic sub-

stances raining down from higher up. In short, the environment is completely different from what humans are familiar with. Despite all these inhospitable conditions, however, various fish and very different invertebrate creatures and micro-organisms still thrive in the ocean depths.

Temperature, pressure, the density of foodstuffs and light levels vary according to the further down from the surface one descends. Yet living things with structures and systems suited to their environment are found at all depths. Down there are fish, mussels, sea lilies, sponges, crustaceans, shrimps, crabs, arthropods, octopuses, ink fish, worms with spiny bodies, starfish, sea urchins, jellyfish, lobsters, single-celled organisms and organisms whose names can be encountered only in advanced biology texts and can be seen only in nature documentaries, all of them unique to the ocean depths.

Frederick Grassle and Nancy Maciolek, well-known American marine ecologists, say there may be 10 million species beneath the sea,[67] and an astonishing wealth of species several thousand meters beneath the surface, in an environment previously believed to contain no life at all. Based on his research, Grassle, Director of the Rutgers University Marine and Coastal Research Institute, makes the following comment:

This sampling revealed that the deep-sea may, in fact, rival tropical rainforests in terms of the numbers of species present. Thus the deep sea may physically resemble a desert, but in terms of species composition, it is more like a tropical rainforest. [68]

In one study 1,500-2,500-m depth range off New Jersey and Delaware, 30 cm x 30 cm samples of sea water contained 798 species in 171 families and 14 phyla.[69] In another study performed off the coast of southern Australia, more than 800 species were determined in 10 square meters (11.96 square yards) of the sea floor.[70]

Yet a large part of the oceans have still not been the subject of scientific research. Much of the bottom of the world's oceans are still unexplored and unmapped.[71] Therefore, every new investigation reveals some previously unknown species.

One biological phenomenon discovered at the beginning of the 21st century was that in the ocean floor's mud layer, certain bacteria and archaeobacteria consume methane, and thus perform an activity of vital importance to our lives. It is thought that these micro-organisms consume devour 300 million tons of methane every year, about as much as humans now inject into the atmosphere with agriculture, landfills, and burning of fossil fuels.[72] Therefore, as stated in *Science* magazine of July 20, 2001, "These

methane-eating microbes—once thought to be impossible—now look to be profoundly important to the planet's carbon cycle."[73]

Another striking fact is the flawless co-operation and order among the bacteria in question, revealed only with this century's technology: Thanks to archaeobacteria (which have a number of different structural features) bacteria can feed on methane in an oxygen-free environment, because the archaeobacteria in turn provide the oxygen that the bacteria need.

These creatures, too small to be seen with the naked eye, live thousands of meters down in the oceans in a layer of mud containing no oxygen, where they work nonstop. What would happen if these single-celled organisms disappeared? Their importance is crystal clear: Should these micro-organisms vanish, then large quantities of methane gas ion in the sea bed would enter the atmosphere. Global warning of mud due to the greenhouse effect would occur. The climatic balance would be damaged all over the world, and the Earth would become a planet too hot for us to live on.

In 2001, it was learned that certain species of bacteria live beneath the ocean bed, in the Earth's crust.[74] These organisms' natural habitat lies up to 300 meters (985 feet) beneath the ocean floor, and thousands of meters under the

surface. The activities they carry out are equally astonishing. These bacteria feed on rocks, and in doing so, perform another task of the greatest importance to all living things, making a major contribution to the flow of elements and chemical substances in the oceans.[75] Note that these single-celled organisms do something, so important to life on Earth, that even the entire world's laboratories and scientists could not manage were they to join forces.

Another ecosystem on the ocean floor is found around hydrothermal vents,[76] where superheated water containing various minerals emerges from cracks in the Earth's crust. More than 300 unique species have so far been discovered living in close proximity around these springs, which were discovered only in the past 20 years.[77] This environment is home to large tube worms several meters in length and covered in bright red hairs, giant oysters, mussels, squid and invertebrates with all kinds of different appearances. Understandably, it has attracted great interest from researchers. In the search to answer how these creatures find food, astonishing facts have emerged.

The tube worm found in the ecosystem around these hydrothermal vents is very different from the other worms we are familiar with: It has no mouth or digestive system! It meets its nutritional needs thanks to the bacteria that live inside its tissues—a total of 285 billion bacteria per ounce of

tissue.[78] These bacteria perform chemosynthesis, transforming chemical substances that emerge from the springs into nutrients, which the worms use to live.

The bacteria at the bottom of the ocean are the first link in the food chain. Thanks to these micro-organisms, some invertebrates able to survive, and some animals, such as the squid, survive thanks to these invertebrates. The wealth of species and harmony among them, in an environment that until recently was thought to contain no life at all, is truly amazing.

Also, it was recently established that various species are living near the water leaks on the ocean floor, which are chemically rich but cold. Each new study and development indicates how little we know about the richness of the ocean bed.

Bear in mind that submarines used in deep-sea exploration were developed only in the last 70 years. The exploring submarines that dive down thousands of meters have been specially designed by experts from various fields. Similarly, each species that has lived for millions of years at the bottoms of the

deepest oceans has also been created with a structure appropriate to its hostile environment. Moreover, the mechanisms in these creatures' cells are many times more complex than the systems in research submarines. Structures so complex cannot, as evolution claims, have come into being by chance. The variety of living things in the depths of the oceans, and their superior characteristics, belong to God, the Creator of all things.

Bacterial Ecology

When life is mentioned, plant and animal species generally come to mind. Some people even imagine that life consists solely of these. However, another living group which—despite being too small to be seen with the naked eye—constitutes 25% to 50% of all living species on the

Research has demonstrated the astonishingly rich species diversity that exists several thousands of meters down in the oceans, where it was once believed that there was no life at all.

Despite such adverse conditions as high pressure, low temperatures and scarce food resources, various animals, different-colored crustacean and micro-organisms thrive in the dark ocean depths.

Earth: micro-organisms.[79]

Bacteria represent the most important portion of these micro-organisms. These may be spherical, rod-like or spiral in shape. Most are smaller than 0.001 millimeters (0.00003937 inch) in size, so small that hundreds of thousands could fit into the period at the end of this sentence.[80]

Every ecosystem and all living species depend, either directly or indirectly, on the activities of bacteria. (Their essential importance to the delicate balances of life on Earth

will be described in later sections.) They can be found just about everywhere.[81] Thousands of species of bacteria exist in ice caps, hydrothermal vents, environments with high levels of salinity or acid, amid chemical contaminants or pollutants, in the organs and tissues of animals and human beings, in the depths of the seas where there is little or no oxygen, and in the deep layers of the Earth.

For example, the intestines of a healthy human being are an ecosystem containing 400 different species of bacteria, organisms that play a very important role in the regular functioning of the intestines.[82]

Bacteria are part of a group that exhibits the greatest diversity among living things. but about which the least is known.[83] Their diversity is far beyond the grasp of even 21st century technology. You could say that a gram of soil containing thousands of species of bacteria and billions of individuals resemble a rain forest at the microscopic level. In other words, an extraordinary diversity similar to a rain forest's can also be found in a handful of earth under the microscope.

To date, scientific studies aimed at determining bacteria and microbe species are very much fewer than actually needed. It is difficult to investigate these organisms for a number of reasons: Most species of bacteria cannot be

raised in the laboratory or in cultures, even though a drop of sea water or tiny amount of soil contains billions of them. Even the unbelievable wealth of bacteria species has been realized only in recent years, with advances made in our knowledge of genetics.

When the genetic structures of microbes that appear very similar even under the microscope were examined, they were found to be actually very different species. In the words of the Northwestern University microbiologist David Stahl, two microbes can be "as different from each other as a grizzly bear from an oak tree."[84]

In his book *In Search of Nature*, Edward O. Wilson summarizes the latest developments regarding these micro-organisms:

> *The true black hole of systematics, however, may be bacteria. Although roughly 4,000 species have been formally described, recent studies in Norway have indicated the presence of from 4,000 to 5,000 species, almost all new to science, among the 10 billion individual organisms found on average in each gram of forest soil, and another 4,000 to 5,000 species, different from the first set and also mostly new, in an average gram of nearby marine sediments.*[85]

Another expert on the subject, Rita Colwell, former President of the Maryland University Biotechnology

Institute, gives the following figures regarding the wealth of bacteria on Earth:

> *Only 3,000-4,000 species of bacteria have been described. It has been estimated that there may be as many as 300,000 species of bacteria, but more likely the number is closer to 3,000,000.*[86]

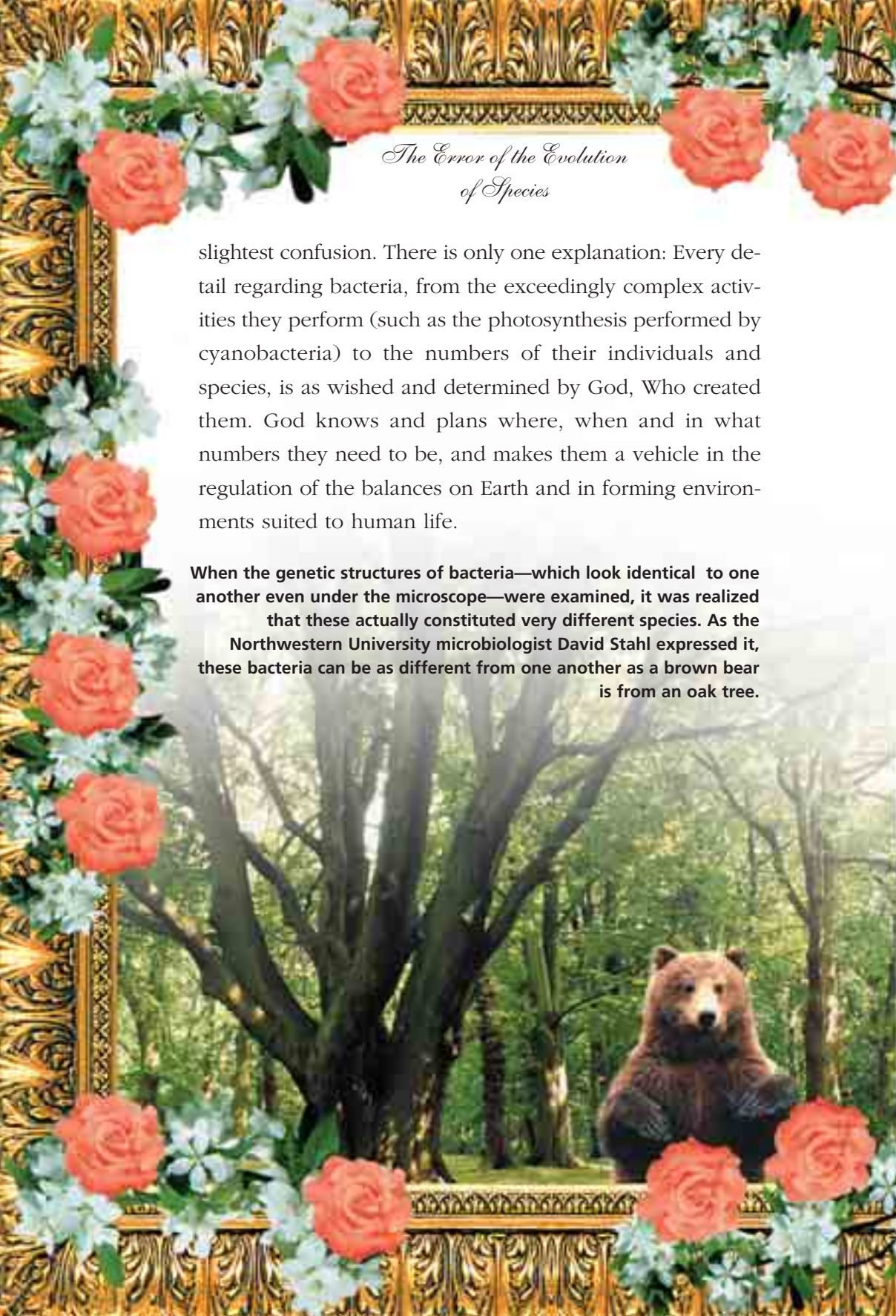
Most of us think of bacteria as entities that merely cause disease. Yet this is not correct. Only a small fraction of bacteria species are agents of disease.[87] As Andrew Pollack described in an article, bacteria play an essential role in the formation and continuity of life on Earth and in maintaining balances essential to life.[88] This fact is set out by Professor James Shapiro from the Chicago University Department of Biochemistry and Molecular Biology:

> *Although bacteria are tiny, they display biochemical, structural and behavioral complexities that outstrip scientific description. In keeping with the current microelectronics revolution, it may make more sense to equate their size with sophistication rather than with simplicity. . . . Without bacteria, life on earth could not exist in its present form.*[89]

Although they multiply very rapidly and are so small and numerous, bacteria act in such ways as to permit not the

slightest confusion. There is only one explanation: Every detail regarding bacteria, from the exceedingly complex activities they perform (such as the photosynthesis performed by cyanobacteria) to the numbers of their individuals and species, is as wished and determined by God, Who created them. God knows and plans where, when and in what numbers they need to be, and makes them a vehicle in the regulation of the balances on Earth and in forming environments suited to human life.

When the genetic structures of bacteria—which look identical to one another even under the microscope—were examined, it was realized that these actually constituted very different species. As the Northwestern University microbiologist David Stahl expressed it, these bacteria can be as different from one another as a brown bear is from an oak tree.



"Although bacteria are tiny, they display biochemical, structural and behavioral complexities that outstrip scientific description. In keeping with the current microelectronics revolution, it may make more sense to equate their size with sophistication rather than with simplicity... Without bacteria, life on earth could not exist in its present form." (James Shapiro)

There is no one in the heavens and Earth who will not come to the All-Merciful as a slave. He has counted them and numbered them precisely. (Surah Maryam, 93-94)

CHAPTER 2.

LIVING THINGS CREATED FOR MAN

There is no need to explore a rain forest or beneath the sea, with a microscope or technological equipment, to comprehend the magnificent variety of life on Earth. All you need to do, is look at the plant and animal species around you in order to realize that you live in a world along with living things of all kinds. However, most people either ignore this fact or feel no need to think about it, and thus fall into a serious error, because biodiversity is essential to the countless balances on Earth and to human life. To obtain a better understanding of its importance, consider what we obtain thanks to different forms of life and what we would lose if they were to disappear.[90]

From birth to death, we humans make use of these micro-organisms, both plants and animals, but pay them nothing in return. Ruth Patrick, an expert on biological diversity of the Philadelphia Academy

of Natural Sciences, describes how what living things give us is truly priceless:

> *... the presence of a great number of species with different structures, different chemical compositions, and different lifespan form one of the most important bases of life for humans throughout our planet.* [91]

The well-known Stanford University Professor of Biology Paul Ehrlich expresses the same idea in these words:

> *... microorganisms, plants, and animals play in providing free ecosystem services, without which society in its present form could not persist.* [92]

Paul Raven, a professor of biology and expert on biodiversity, describes how living things play a vital role in making the Earth a planet fit for human life:

> *Human existence depends inextricably on other life forms. All humans need Earth's flora, fauna, and microorganisms for sustenance, materials, energy, and even the air they breathe.* [93]

Professor Bryan Norton of South Florida University refers to the value of the species richness on Earth:

> *The value of biodiversity is the value of everything there is. It is the summed value of all the GNPs of all countries from*

now until the end of the world. We know that, because our very lives and our economies are dependent upon biodiversity. If biodiversity is reduced sufficiently, and we do not know the disaster point, there will no longer be any conscious beings. With them will go all value—economic and otherwise. [94]

We can witness the benefits we obtain from the plant animal species around us every day. However, there are also countless living things we cannot see with the naked eye, or which we know nothing about. Professor Paul Ehrlich makes the following comment:

... the basic point is that organisms, most of which are obscure to nonbiologists, play roles in ecological systems that are essential to civilization.[95]

Advances in technology have revealed a number of facts concerning the importance of the diversity on Earth. Many living things that were previously regarded as unimportant or useless provide human beings with new blessings. For example, a peculiar-looking marine worm contains chemical substances used in the treatment of sick people. Or consider the recently discovered bacteria species that promise great benefits for humanity. For example, one species of bacteria found in the Potomac River in the USA can break down the chlorofluorocarbon gasses that damage the ozone

layer.[96] And the bacterium *Thermus aquaticus*, discovered in the thermal springs in America's Yellowstone National Park, played a significant role in the advancement of genetic science.[97] Thanks to an enzyme obtained from this micro-organism, the polymerase chain reaction (PCR) technique was developed—an inseparable component of the Human Genome Project, genetic testing and genetic analysis. This made it possible for the process of producing DNA profiles, which had taken weeks back in the 1980s, to be performed in a much shorter time.[98]

Living things make countless contributions to the ecosystems and balances on Earth, not just to human life. These contributions' importance and complexity are described with an example in an article titled "Ecosystem Services' Benefits Supplied to Human Societies by Natural Ecosystems" written by 11 recognized experts[99] from various American universities:

> *Imagine, for example, human beings trying to colonize the moon. Assume for the sake of argument that the moon had already miraculously acquired some of the basic conditions for supporting human life, such as an atmosphere, a climate, and a physical soil structure similar to those on Earth. The big question facing human colonists would then be, which of Earth's millions of species would need to be transported to the moon to make that sterile surface habitable?*

One could tackle that question systematically by first choosing from among all the species exploited directly for food, drink, spices, fiber, timber, pharmaceuticals, and industrial products such as waxes, rubber, and oils. Even if one were highly selective, the list could amount to hundreds or even thousands of species. And that would only be a start, since one would then need to consider which species are crucial to supporting those used directly: the bacteria, fungi, and invertebrates that help make soil fertile and break down wastes and organic matter; the insects, bats, and birds that pollinate flowers; and the grasses, herbs, and trees that hold soil in place, regulate the water cycle, and supply food for animals. The clear message of this exercise is that no one knows which combinations of species—or even approximately how many—are required to sustain human life.

Rather than selecting species directly, one might try another approach: Listing the ecosystem services needed by a lunar colony and then guessing at the types and numbers of species required to perform each. Yet determining which species are critical to the functioning of a particular ecosystem service is no simple task. Let us take soil fertility as an example. Soil organisms are crucial to the chemical conversion and physical transfer of essential nutrients to higher plants. But the abundance of soil organisms is ab-

solutely staggering. Under a square yard of pasture in Denmark, for instance, the soil is inhabited by roughly 50,000 small earthworms and their relatives, 50,000 insects and mites, and nearly 12 million roundworms. And that tally is only the beginning. The number of soil animals is tiny compared to the number of soil microorganisms: a pinch of fertile soil may contain over 30,000 protozoa, 50,000 algae, 400,000 fungi, and billions of individual bacteria. Which must colonists bring to the moon to assure lush and continuing plant growth, soil renewal, waste disposal, and so on? Most of these soil-dwelling species have never been subjected to even cursory inspection: no human eye has ever blinked at them through a microscope, no human hand has ever typed out a name or description of them, and most human minds have never spent a moment reflecting on them. Yet the sobering fact is, as E. O. Wilson put it: They don't need us, but we need them.[100]

Clearly, the scientists who wrote this paper are pointing out that despite all the progress made in science, the vital role played by living things in ecological systems has been realized on recently. One thing is known for certain: Biodiversity makes the Earth an environment where all the conditions necessary for human beings are met. Obviously, the millions of species that act constantly on our behalf could not have come into being spontaneously or through

series of coincidences; they were created and placed at our service by our Lord, the infinitely bountiful.

This chapter shall examine the outlines of a very small part of the blessings bestowed on us by the richness of species; and in this way, answer to some extent the question of why there exists such magnificent diversity on Earth.

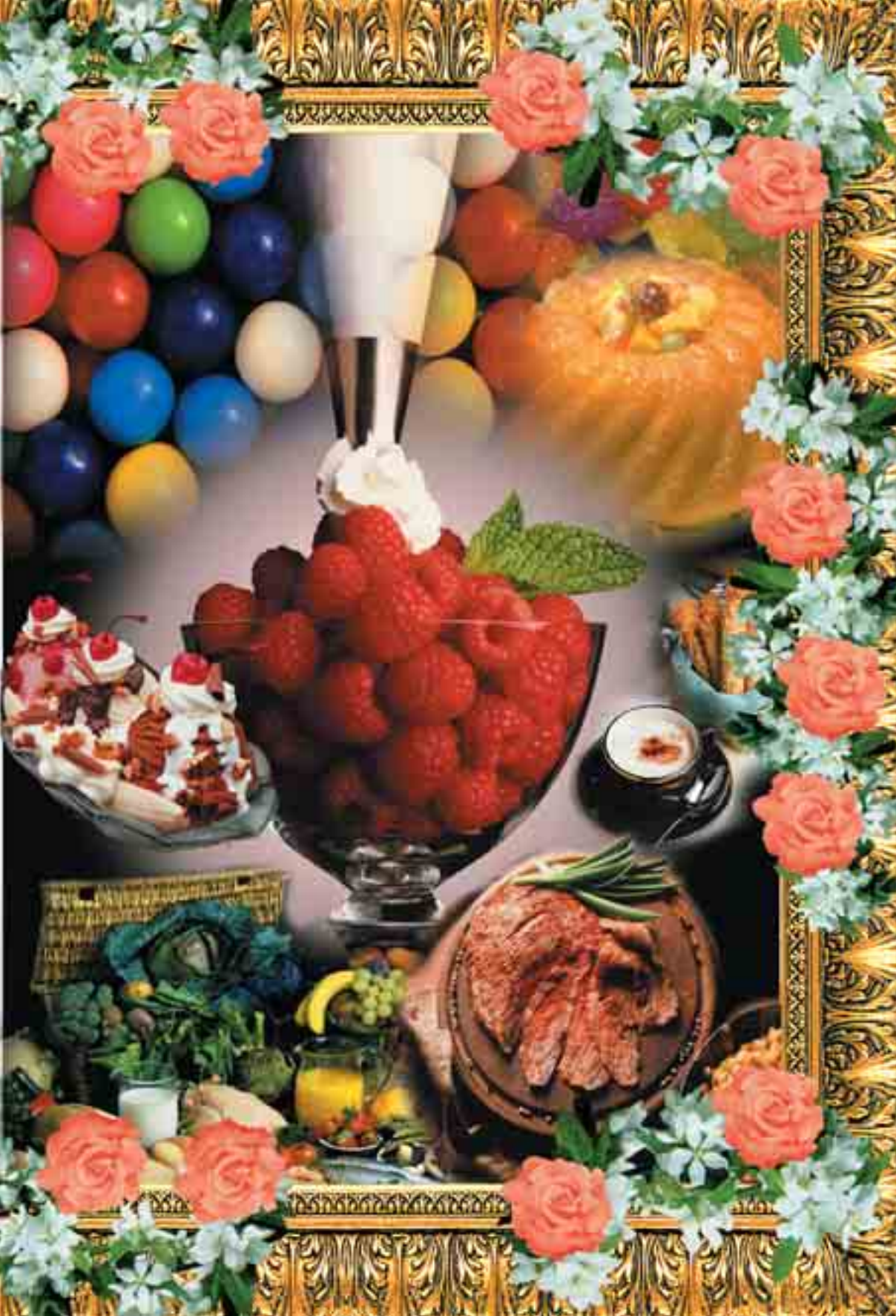
1) The Plants and Animals that are Our Food Sources

We must eat and drink to stay alive—that's how we obtain the proteins, amino acids, carbohydrates, fats, vitamins, minerals and fluids essential to the many processes taking place in our trillions of cells. The striking point here is that eating is not difficult, troublesome or inconvenient, but a function we enjoy. We derive great pleasure from the tastes of the matchless foods, drinks, fruits, vegetables, cakes, sweets and pastries that meet our daily nutritional requirements. Try to recall all the delicious foods and drinks you have tasted up to now. The fruit juices you drink to quench your thirst, the melons or watermelons you eat in the heat of summer, the lamb chops or fish cooked on a barbeque, ice cream, chocolate, pastries, rice pudding, ravioli, strawberry cake, rice, honey...

All these delicious foodstuffs that meet our needs, we obtain from plants and animals. In different parts of the globe there are different cereals, fruits, vegetables, and marine and terrestrial animals with different chemical structures and nutritional values. For example, human beings consume around 100 million tons of fish a year. [101]

Yet only a small part of the biological variety existing today is actually used. According to the well-known environmentalist Norman Myers, for instance, human beings throughout the course of history have made use of 7,000 species of plants for nutritional purposes.[102] On the other hand, it is estimated that the total number of edible plants is at least 75,000.[103] Tropical regions in particular are full of thousands of plant species of a high nutritional value. Professor Peter Raven states that some of the 250,000 species of flowering plants can be grown in regions where agriculture is still not possible, to provide useful products.[104]

Most people cannot properly comprehend the importance of biodiversity. They imagine that all they require are a few cereals such as wheat, rice and maize, a number of fruits and vegetables, and a few herds to provide meat and milk. Of course these few species are sufficient for a person's nutritional requirements. However, these also depend, directly or indirectly, on a wide range of bacteria, animals,

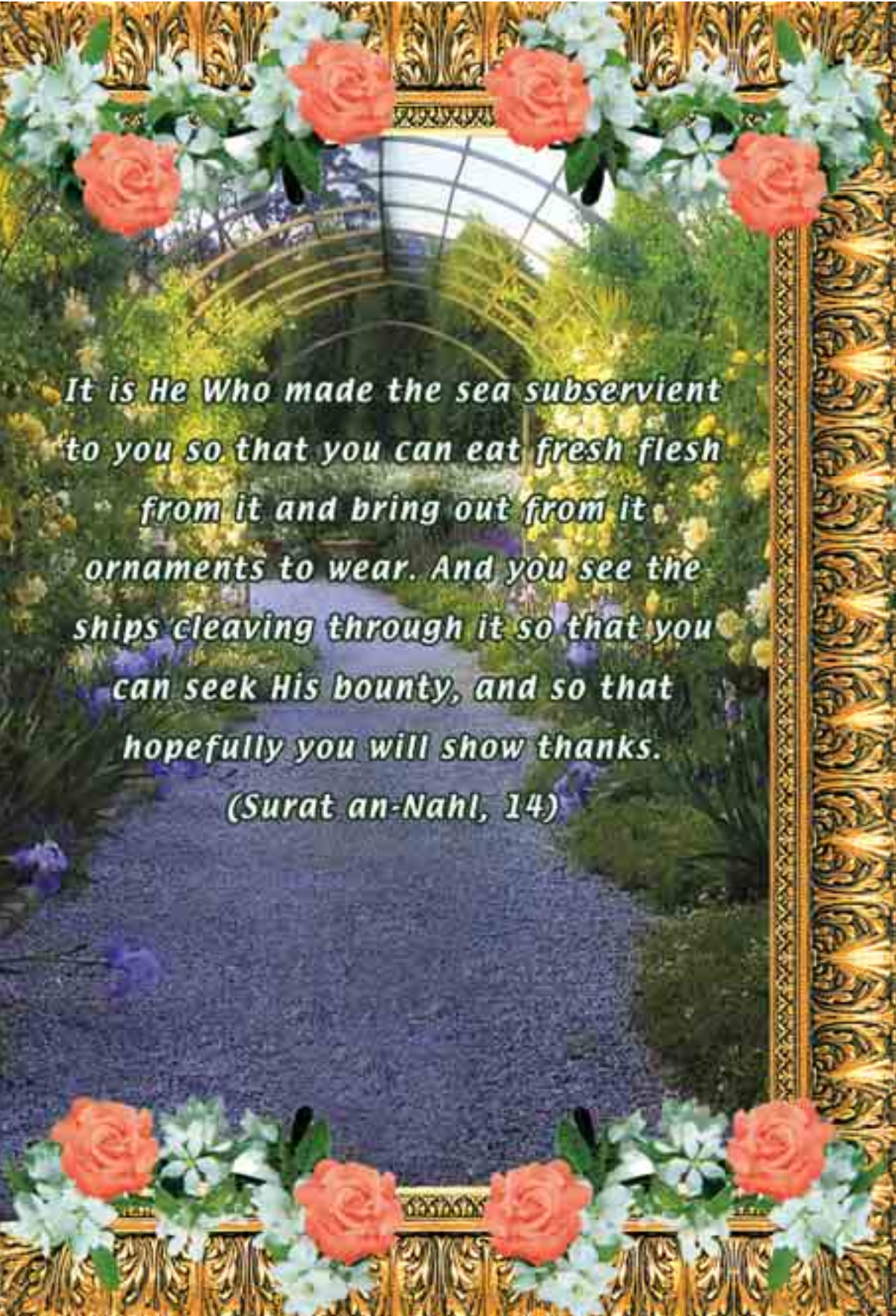


insects and micro-organisms. Maurizio Paoletti of Pauda University says that:

> *Thousands of plants and animals and microorganisms are associated in rural ecosystems in the cycle of crop or animal production. Most of these are still little known.* [105]

Consider the food chain that links together millions of living species in a flawless cycle. Any ecosystem contains *producers*, such as green plants, *consumers*, such as animals, and *breaking-down* organisms such as bacteria and fungi. Green plants, seaweed, algae and some *photosynthetic* bacteria are matchless food factories, producing millions of sugar molecules every second.[106] Each year, photosynthesizing organisms produce about 170 billion metric tons of carbohydrates—about 30 metric tons for every person on Earth.[107]

Humans, on the other hand, constitute the final link in the food chain. For example, the zander—a freshwater bass and an excellent source of protein for humans—feeds on smaller fish that in turn, feed on invertebrate animals that eat algae. In short, a species we eat for nutritional purposes is closely linked to a great many other living species, from marine organisms too small to be seen with the naked eye to small invertebrates. This same state of affairs applies to all living things that provide us with the vegetable and


It is He Who made the sea subservient
to you so that you can eat fresh flesh
from it and bring out from it
ornaments to wear. And you see the
ships cleaving through it so that you
can seek His bounty, and so that
hopefully you will show thanks.
(Surat an-Nahl, 14)

animal foodstuffs we consume every day.

By setting aside familiarity and prejudice and looking at the living world, we encounter a very great many plants and animals that meet our nutritional needs immaculately, with their chemical structures, attractive smells and delicious flavors. Neither this marvelous harmony nor the countless details of the planet's food chain can be explained in terms of chance. These living things have been specially created and given to us as matchless blessings.

It is God, infinitely compassionate and merciful, Who creates the plants and animals that are the sources of the foodstuffs we require. This is revealed in a number of verses:

God is He Who created the heavens and the Earth and sends down water from the sky and by it brings forth fruits as provision for you... (Surah Ibrahim, 32)

It is He Who produces gardens, both cultivated and wild, and palm-trees and crops of diverse kinds, and olives and pomegranates, both similar and dissimilar. (Surat al-An'am, 141)

Have they not seen how We created for them, by Our own handiwork, livestock which are under their control? We have made them tame

for them and some they ride and some they eat. And they have other uses for them, and milk to drink. So will they not be thankful? (Surah Ya Sin, 71-73)

2) Living Things Used in Drug Production

Thousands of micro-organisms, fungi, plant and animal species are being used in the treatment of various illnesses. Many drugs are prepared with chemical substances obtained from living things or duplications of these substances in laboratories. For example, aspirin—an analgesic painkiller familiar to just about everyone, comes from the bark of the willow tree. Quinine, used to treat malaria for the last 70 years, is found in the roots and bark of the cinchona tree. More than 20,000 species of plant are today employed for medicinal purposes.[108] According to Professor Norman Farnsworth of Illinois University, plants represent the main source of medicines for some 3.5 to 4 billion people.[109]

The use of living things, most of whose names we have never even heard of, is increasing every day in the medical and pharmaceutical industries. Taxol, used against breast and ovarian cancer, is obtained from the bark of the north American yew tree. Squalamine, which prevents the development ofcancer, comes from the liver of a species of shark; digitalis, an adjunct treatment for people with heart failure,

is obtained from the foxglove. Vinblastine and vincristine, two chemical substances (effective against Hodgkin's disease and infantile leukemia) were obtained from the Algerian violet. Thanks to a clotting agent in the horseshoe crab found in North America and the West Indies, potentially fatal bacteria found in vaccines, pills or medical equipment can be identified.[110] Antibiotics used against microbes are generally obtained from bacteria and fungal moulds. More than 3,000 species of plant are used for birth control alone.[111]

Were it not for this diversity in living things, we would have no medical and pharmaceutical industry to speak of. Obviously, many living species have the ability to alleviate certain human diseases and health problems. Despite this,

Many living things, including the rabbits pictured here, are used in testing treatments administered to cure diseases and in the manufacture of drugs. There is no doubt that it is God who creates these animals and their properties that serve as cures for diseases and disorders.

only a very small fraction of the living species in nature have been described, and of those, only an even smaller portion has been studied in detail.

For example, California University's Professor Peter Bryant states that only 1% of the plants in the tropical rain forests have been studied in terms of their medical properties.[112] The number of plants and invertebrates that have been investigated comprehensively in terms of whether they are effective against disease is very low.[113] Wonderful proteins, molecules and chemical compounds that can liberate human beings from many diseases would already appear to exist in living things.

In addition, bacteria, birds, monkeys, rats, cats, dogs, rabbits, pigs, insects and many other living things are used in medical research and the testing of new drugs and vaccines. For example, the fruit fly *drosophila* is a laboratory insect widely used in genetic research. The armadillo is one of the few species of animal that can be used to research leprosy.[114] The number of animals used annually in scientific studies in the USA alone is 18 to 22 million.[115]

Never forget, it is God Who creates both disease and cure. The therapies and drugs used in the treatment of disease are simply means. Similarly, the micro-organisms, animals and plants used in the production of treatments and drugs are also just raw materials. It is our Lord, the infinite-

ly compassionate and affectionate, Who creates these living things and their properties that cure diseases and disorders.

3)Biodiversity and Products

Living things represent the basic source of all our needs as well as our luxuries. Think of all the products you use in your daily life: The oil and gas we use for heating; clothing made from wool, cotton or silk; the gasoline that runs our cars, the paper we write on, furniture made from wood or plastic, the oil and petroleum products that represent the backbone of industry; cleaning materials made out of animal and vegetable fats... No doubt that these and similar products are indispensable parts of our lives. Never forget that were it not for living species—miracles of creation that have existed for millions of years—these products would not exist.

Scientists agree that biological diversity represents a matchless treasure store, and that as yet unknown species will also provide boundless benefits. As Professor Wilson puts it, "Wild spaces are an untapped source of new pharmaceuticals, crops, fibers, pulp, petroleum substitutes, and agents for the restoration of soil and water."[116]

One living group whose features provide major benefits

for human beings are bacteria. For example, scientific research in the field of biotechnology makes considerable use of the bacterium *Acetobacter xylinum* in the production of cellulose, and *Alcaligenes eutrophus* in the manufacture of plastic.[117] Ssome cyanobacteria species can be used in the manufacture of paper and other products obtained from trees.[118] According to the results of one study announced in 2002, a species of bacterium, *Desulfuromonas acetoxidans*, produces electricity by using sea sludge![119] In short, bacteria are matchless factories with the capacity to create a great variety of useful byproducts.

4)Living Models for Technology

Everywhere, from the depths of the oceans to lakes, from deserts to forests, from under the ground to the air itself, the Earth is filled with living things possessed of astonishing properties and systems. Designers, researchers and scientists learn from them: They produce new models and designs by adopting the features of certain plants and animals as their starting points. A great many designs believed to be invented with human ingenuity are actually already in existence in nature. The structures or models of technological products emerging as the result of accumulat-

ed knowledge and long years of research have already been present in living things for millions of years.

Models used in technology have been developed by observing and studying the diversity on Earth. Tens of thousands of inventors and researchers today are trying to adapt the superior and extremely efficient systems in living things. Countless possibilities have emerged in this way. For example, chemical substances that can be used in the production of light but strong products are obtained from an animal species whose name one has never even heard of. These products are used in a great many areas, from space to daily life. Professor Wilson states the importance of species diversity:

The snout-like protuberances on dolphins' mouths were used as models for the prows of modern ships. Prows shaped like the nose of a dolphin plough through the water with less friction and permit greater speed, with the expenditure of less energy.

Leading helicopter manufacturers have produced functional models by replicating the dragonfly's superior wing structure and maneuvering abilities.

Biodiversity is the frontier of the future ... The true frontier for humanity is life on earth — its exploration and the transport of knowledge about it into science, art and practical affairs. [120]

The properties of living things have always represented an inexhaustible source of inspiration. A great many products of modern technology are imitations of features in nature. For instance, the aeronautic industry has attained its present advanced level by imitating the systems in birds and other flying animals. Inspired by the fins that allow sharks to swim very fast, small components known as *"winglets"* have been attached to wing tips to improve aircraft performance and also provide considerable fuel savings.[121]

Dolphins' nose-like protrusions have served as a model for the prows of modern ships. Leading international helicopter manufacturers have produced new models imitating the flight systems of the dragonfly. Robot manufacturers are now trying to develop small robots inspired by anatomy and locomotion found in insects. (Many examples of devices modeled after life forms are provided in our books *The Design in Nature* and *For Men of Understanding.*)[122]

No doubt, living things' superior characteristics that permit us to develop new products and techniques once again better our understanding the sublime nature of God's creation.

5) Genetic Richness

All living things consist of cells, the most complex structures that science has yet encountered. Cells are the building blocks of life, and the cell's data bank is the DNA molecule. An amazing quantity of information is recorded in the DNA molecule, which is far too small to be seen with the naked eye. For example, in the single DNA molecule of a single human cell, there is enough information to fill an encyclopedia consisting of millions of pages. This giant data bank is encoded using four special bases, known as nu-

cleotides. There are around a million nucleotide pairs and a thousand genes in a bacterium's cell, and between 1 and 10 billion nucleotide pairs and tens of thousands—or even a few hundred thousands—of genes in a plant or animal cell.

Every species' DNA has a different nucleotide sequence—in other words, a different genetic structure. In addition, the data sequence in the DNA molecule is different in every individual of a particular species.

Obviously, in addition to the spectacular species diversity on Earth, there is also an unbelievable genetic diversity. That is the reason why all the millions of species that have ever lived on Earth and all their individual members are so very different to one another. There are wide variations within species, whose individuals possess genetic characteristics appropriate to their environments.

Thanks to their superb genetic wealth, plant and animal species have been improved over thousands of years: Breeds

The arrangement of information in the DNA molecule, the cell's data bank, is different in every individual in every species. That is the underlying reason why all the millions of species that have ever lived on Earth and all the countless individual humans are all different from one another.

with desired characteristics are obtained by cross-breeding different varieties of many cereals, fruits, vegetables, plants and animals. For example, breeders employ special mating programs in order to obtain sheep and cattle that give the best wool, meat or milk. They obtain new strains by mating cattle with high meat and milk productivity but with poor resistance to natural conditions with others with low meat and milk productivity, but which are more resistant.[123]

Crops such as wheat, rice and corn, indispensable parts of our daily lives, have also been improved thanks to their innate genetic diversity. High-productivity varieties that are resistant to disease, climatic conditions and drought have been obtained by crossbreeding wild plant species. For example, it was recently observed that *Zea diploperennis*, a species of Mexican wild corn, possessed resistance genes to seven viruses that cause disease.[124] The genetic structure of this wild corn is worth billions of dollars a year.[125] Resistance to a deadly virus carried by the genes of one African species of wild barley and resistance to disease in a species of wild Asian sugar cane have been used to increase the productivity of domestic varieties. One species of wild tomato discovered in the Andes has been used to increase the sugar content of other domestic tomatoes.[126] According to World Resources Institute statistics, genetic diversity was the main reason for a two-fold increase in the rice, barley, wheat, cot-

ton and sugar cane harvest in the United States between 1930 and 1980, as well as a three-fold increase in tomatoes, and a four-fold increase in potatoes and maize.[127]

Contrary to the distortions made by certain circles who seek to use biodiversity to further their own ideologies, it has absolutely nothing to do with the fictitious theory of evolution. Proponents of evolution try to portray the variations and genetic diversity in nature as evidence, by misleading those who have little information on the subject of biology. However, genetic diversity within a species consists of the exchange of biological information already possessed by members of that species to produce offspring with new genetic combinations. Therefore, no new genes nor any new species emerges as a result of genetic variation. Species are always the same species, because their genes are always the same. Existing genes are merely brought together in different combinations, which has nothing at all to do with any supposed process of evolution.

Genetic diversity is one of the most important links in Earth's complex ecological chain. Paul Ehrlich, Professor of Biology at Stanford University, explains:

> *Aside from nuclear war, there is probably no more serious environmental threat than the continued decay of the genetic variability of crops.*[128]

Most advances in the fields of agriculture and biotechnology have been made possible thanks to the boundless scope of biodiversity. As Professor Ehrlich says:

> *Natural ecosystems maintain a vast genetic library that has already provided people with countless benefits and has the potential for providing many, many more.* [129]

6) Living Things Used in the Biological Struggle

An increase in the numbers of insects that can harm agricultural land, orchards or forests is prevented by means of various other life forms. Various birds, spiders, insect parasites, wild bees, flies, ladybirds and species of fungus and many other organisms keep 99% of insect pests under control.[130] Species of which most people take little notice play an important role in the stabilization of ecological balances. It is estimated that these beneficial organisms contribute billions of dollars to the economy every year by protecting

Wild bees that feed on the larvae of insects that damage domestic fruit are some of the organisms employed in the struggle to control agricultural pests.

crops and reducing the need for insect pesticides.[131] Bearing in mind that pesticides are damaging the balances in nature, kill useful species, and have a negative impact on human health, the importance of these helpful organisms to control harmful insect pests becomes even clearer.

For example, the European corn weevil *Pyrausta nubilalis* and the Japanese insect *Popillia japonica* are being eradicated through the use of natural predators and parasites. Wild bees that feed on the larvae of insect pests that attack fruit are released into Californian fruit farms after they have been raised for that purpose.[132] In conclusion, different species have different tasks in the maintenance of the balances in nature.

Whenever "insects" are mentioned, most people think of those that damage crops or human health. Yet this is a grave misconception, since it is known that most insects are beneficial.[133] Insects play a major role in the food chain on land, in the fertilization of flowering plants, in the cleaning of the Earth, and many ecological balances. To put it more accurately, human life is directly or indirectly dependent upon insects.

7) The Role of Living Things in the Recycling of Elements and Compounds

The total mass of all the organisms that have ever lived is many times greater than the total mass of the carbon and nitrogen atoms on Earth. Therefore, since the amount of carbon, nitrogen and other atoms on Earth is finite, and since no important additional quantity reaches it from space, how does life survive?

The answer that there is a constant exchange and circulation of elements in the structures of living things. Nothing is wasted, therefore. The compounds in plant and animal corpses and dead organisms do not go to waste, but are reused repeatedly, thanks to the flawless recycling systems in nature. These cycles are to a large extent performed by living things we humans never see and have never even heard of.

One of these recycling processes involves the element of carbon. As we know, plants absorb carbon dioxide—consisting of one carbon and two oxygen atoms, CO_2—to perform photosynthesis. However, this is not sufficient to maintain the carbon balance, because a large amount of carbon remains gathered in dead plants and animals. At this point, bacteria and fungi enter the equation and release the carbon

in dead bodies back into the soil and atmosphere.

The nitrogen cycle is also of great importance to the continuation of life. Plants need nitrogen to synthesize amino acids and proteins. Yet they cannot make direct use of the gaseous nitrogen in the atmosphere, but absorb it in the form of nitrates from the soil. This conversion is the work of various micro-organisms. Nitrite bacteria convert nitrogen into a form that plants can use. Human beings and animals obtain the nitrogen they need from plants, but single-celled organisms are of essential importance in converting nitrogen into forms that can be used by other living things.

If there were insufficient nitrogen in the soil, then plants, and thus human beings and animals that depend on them, could not exist. And in nitrogen levels were any higher than they are, then the poisonous gas nitric oxide NO—which causes air pollution and acid rain and which damages the ozone layer and the ecology—would accumulate in the atmosphere. Drinking water would become polluted, and lakes, rivers and other freshwater ecosystems would be damaged.[134]

Forests perform an important function in the circulation of water on Earth.[135] Rain or melted snow absorbed by the soil returns to the atmosphere in the form of water vapor as the result of the transpiratoin of plants and trees. An enormous amount of water vaporizes through the leaves of trees: Plants work like living pumps that release water into the atmosphere by passing up through their stems and branches. In this way, water is constantly being recycled

Elements in the structures of living things are in a constant cycle of movement. Animal wastes and dead organisms do not cease to exist, but are re-used by other organisms, thanks to the perfect recycling system in nature. One of these basic systems is described as the carbon cycle.

without disappearing into the ground.

In addition, living things also play important roles in the global recycling of such elements as phosphorus, sulfur and others. One point requiring emphasizing is that these cycles operate with perfect efficiency. Despite all the advanced technological means of the age we live in, only about 10% of our waste is ever recycled.[136] Yet the recycling efforts carried out by living things for millions of years is nearly 100%. No doubt, this is one of the countless marvels of creation in the system of interconnected living things.

8)Biodiversity's Positive Impact on the Ecosystem

The activities of every ecosystem, be it a lake, or a forest or a coral reef, are largely controlled by living things. As has been mentioned throughout this book, different organisms play major roles in maintaining an environment able to sustain human life. In addition, scientific research has lately revealed that biodiversity increases the productivity of ecosystems, their efficiency and resistance. The more species in a given environment, the healthier and better-ordered is the system's functioning.

As stated in an article titled "Biodiversity and Ecosystem

Functioning: Maintaining Natural Life Support Processes," written by 12 scientists[137] from various universities, American and European experts have clearly shown that there is a direct correlation between species numbers and efficiency.[138] To put it another way, species diversity means high productivity. For example, seven years of research by Prof. David Tilman and his team determined that in any given environment, an area made up of several plant species gives more products than an equal area composed of only a few. A field sown with 16 species of plant produces 2.7 times greater biomass than a field sown with only one.[139] According to Professor Tilman, the reason for this is that many species use the resources in the field more efficiently. Every species in the ecosystem can be compared to a dif-

ferent sphere of work in a human society. In the same way that overall well-being increases as these various different jobs increase, so an ecosystem's productivity rises as its number of species increase.[140]

According to these research and experiments, the reason why productivity increases is the co-operation between species.[141] Yet Darwinism has no room for such joint endeavors as co-operation. According to Darwinism, nature is somewhere in which living things struggle to the death, and in which the weak are eliminated. But observations have once again refuted the theory of evolution.

Another fact, recent research reveals is that the diversity of species increases the resistance of an ecosystem. Biodiversity is literally an insurance mechanism against the negative impact of drought, insect pests, disease and climate changes.[142] Ecosystems with biodiversity are less vulnerable and less affected by adverse circumstances. In addition, biodiversity influences ecosystems,[143] so that following negative conditions an ecosystem re-assumes its former state much faster. In Africa, for example, parts of the Serengeti plains that are rich in species, return to their former state faster after animals have been grazing on them.[144]

9) Environmental Services Provided by Living Things

Have you ever realized how millions of countless living things flawlessly perform tasks that you could never hope to do? The fact is that if these various organisms, great and small, were unable to perform their tasks, neither you nor other living things could exist.

In recent years, studies have been carried out to measure the economic value of some environmental services provided by living things, most of which are beyond price. A team led by Robert Costanza of the University of Maryland in the US, calculated that the Earth provides a minimum of $16-54 trillion dollars worth of "services" to humans per year.[145]

Oxygen Production: Oxygen, one of the elements essential to life, is emitted by green plants and bacteria known as cyanobacteria. The O_2 breathed in by human beings, animals and micro-organisms is constantly replenished through the process of photosynthesis carried out by these organisms, and the balance is thus maintained. Every year, green plants release some 500 billion tons of oxygen into the atmosphere.[146] Green plants and some single-celled or-

ganisms also play a vital role in regulating gasses in the atmosphere and the temperature on Earth. For example, if the level of carbon dioxide in the atmosphere were not regulated by plants, then the Earth's temperature would rise and the ice caps would melt. As a result, some regions would be flooded, and others would become into deserts, endangering thousands of species.

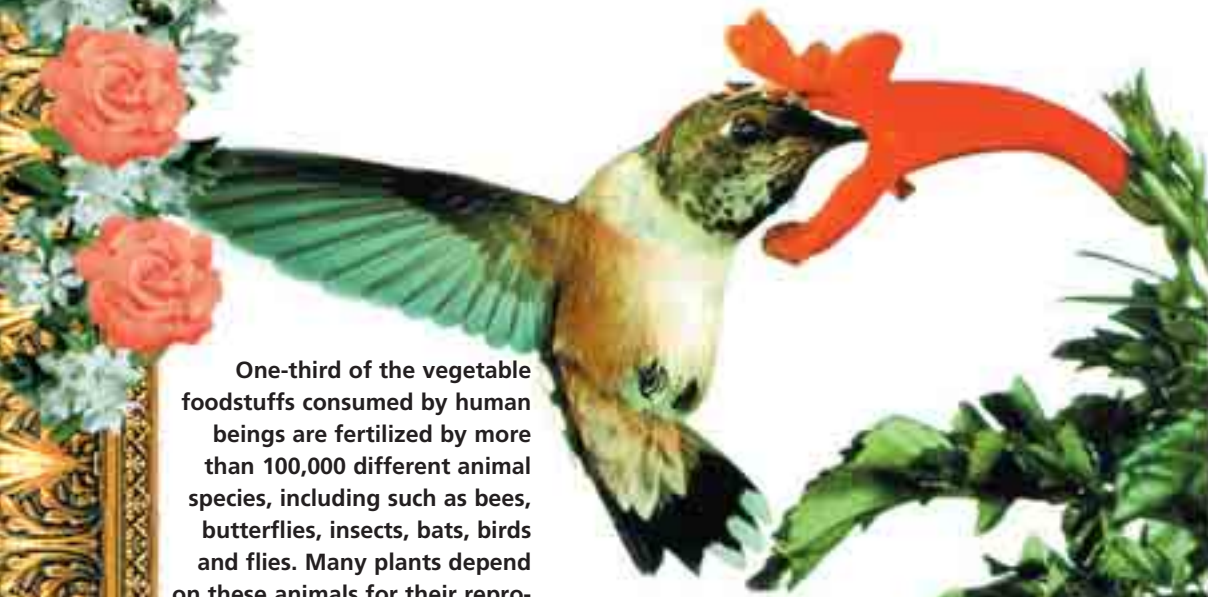
Fertilization of Plants:

One of the ecosystem services is the fertilization of plants and flowers. Some 220,000 species of flowering plant need animals for successful fertilization. More than 100,000 different species take part in this process, including bees, butterflies, flies, birds and even bats,[147] which carry pollen from flowers' male organs to female ovaries. Many species of plants in forests, meadows, agricultural lands, orchards and other environ-

Butterflies help to fertilize plants by carrying pollen from flowers' male organs (stamens) to their female organs (pistils).

ments depend on these pollen-carriers. If these creatures disappeared, they would go extinct.

Eighty percent of the plant foods consumed by human beings are fertilized by these animals.[148] According to recent research, the economic value of flower fertilization by animals is around $200 billion a year.[149] A recent drop in the level of fruit production in certain parts of the USA once again revealed just how important pollen-carrying insects are: The disappearance of wild bee species and an increase in the number of honeybees had a negative effect on the fruit harvest.[150]



One-third of the vegetable foodstuffs consumed by human beings are fertilized by more than 100,000 different animal species, including such as bees, butterflies, insects, bats, birds and flies. Many plants depend on these animals for their reproduction and survival.

In addition, thousands of animal species also contribute to tree reproduction and the growth of forests by distributing tree seeds. For instance, *Pinus albicaulis*, a white-barked species of pine tree) reproduces with the help of a bird named *Nucifraga columbiana*. The seeds of this pine tree lie within a tightly closed cone; the bird propagates new *P. albicaulis* trees by opening the cone, extracting the seeds and burying them.[151] In his book *Made for Each Other: A Symbiosis of Birds and Pines*, Professor of Forestry Ronald Lanner of Utah State University describes the vital role played by birds in the germination of pines.[152]

Cleaning Services: What state would your home quickly turn into, if your rubbish were not collected? The same applies to the Earth. If leaves falling from trees, dead animals and plants, rubbish and industrial wastes accumulated, the Earth would become uninhabitable. This is forestalled, however, by the work of ants, termites, mites, fungi, insects, invertebrates and to a large extent, bacteria. Millions of species break down and convert dead organisms and organic wastes into minerals and components that provide foodstuffs for still other organisms. Just like assembly workers in a factory, various bacteria species work in co-operation.

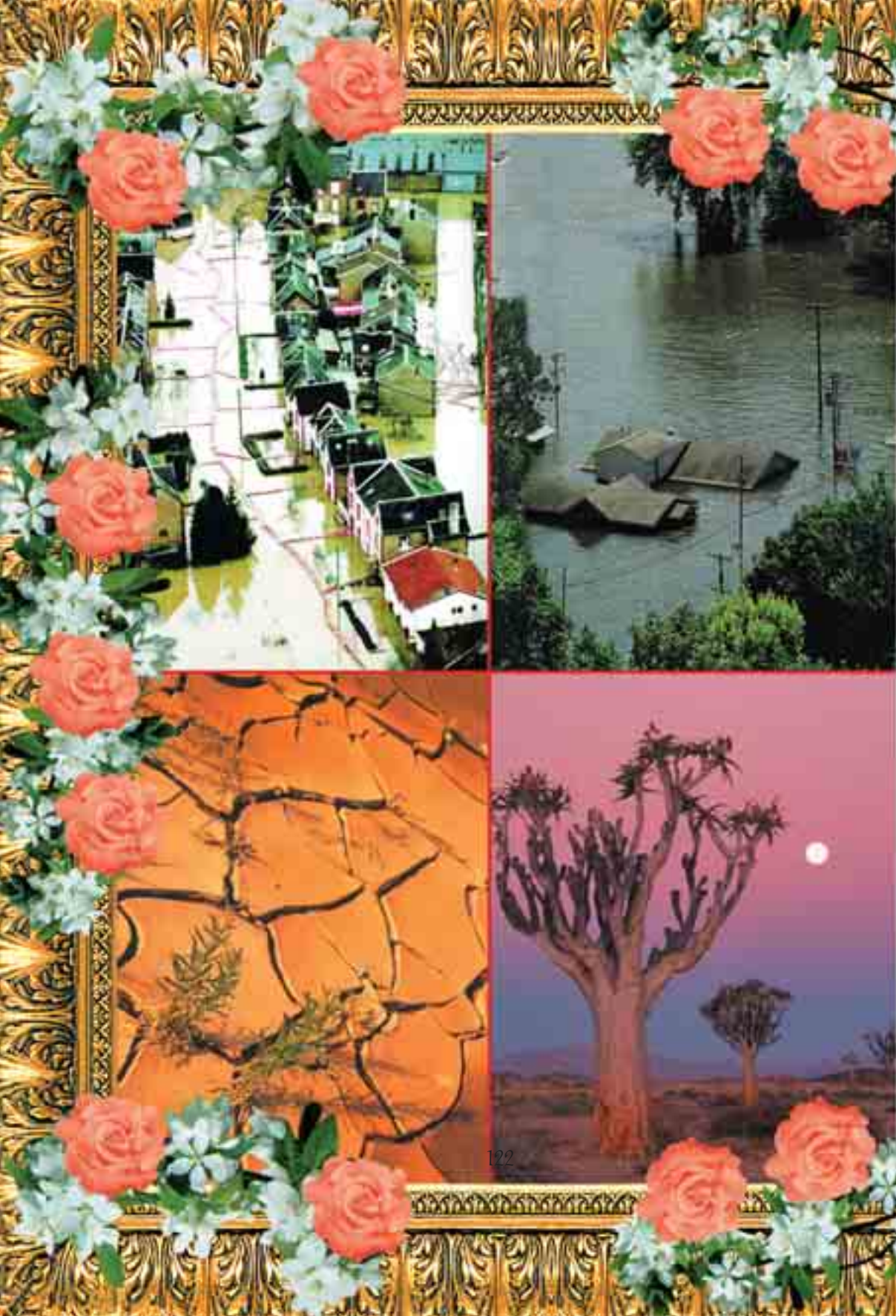
For example, saprophytic bacteria first convert the nitro-

gen in dead animals or animal wastes into ammonia. Nitrite bacteria then convert the ammonia into nitrites. Thanks to this perfectly functioning system, the environment is cleaned up, organic substances are re-released, and the food needs of living things are met. It is thought that around 130 billion tons (2,600,000,745,162 pounds) of substances are processed and recycled by these living things.[153]

Forests made up of various species of tree also make a large contribution to cleaning and disinfecting some 50% of the air, filtering and eliminating harmful gasses and polluted water. One hectare of pine forest absorbs 30 to 40 tons (66,000 to 88,000 pounds) of dust a year, and a hectare of beech forests absorbs 68 tons (150,000 pounds).[154]

Many living things are involved in purifying the oceans. For example, mussels carry out the very important task of filtering sea water as they feed, like peerless filters. The reason for the murky appearance of North America's Chesapeake Bay lies in the fact that the mussels there have been harvested to excess. It is calculated that until a few decades ago, mussels filtered all of Chesapeake Bay's water every 3 to 5 days.[155] Since the bay is 310 kilometers (192 miles) long and 6 to 40 kilometers (3 to 25 miles) wide, the size of the work performed by these shellfish can be better appreciated.

Bacteria and plants also assist human beings by cleaning up toxic wastes. Some members of the mustard family, for example, absorb heavy metals from the soil and store them in their own tissues, thus purifying the soil of toxins. These species are planted to clean up areas with high levels of wastes and toxic metals such as lead, copper, zinc and cobalt. Some species of bacteria assume the role of breaking down substances that lead to soil and water pollution; they can eliminate a number of waste products that endanger the environment and human health. Bacteria species that break down petroleum can be found in



just about all types of soil.[156] In the wake of an oil spill in Alaska in 1989, micro-organisms were used to help clean up the coast..

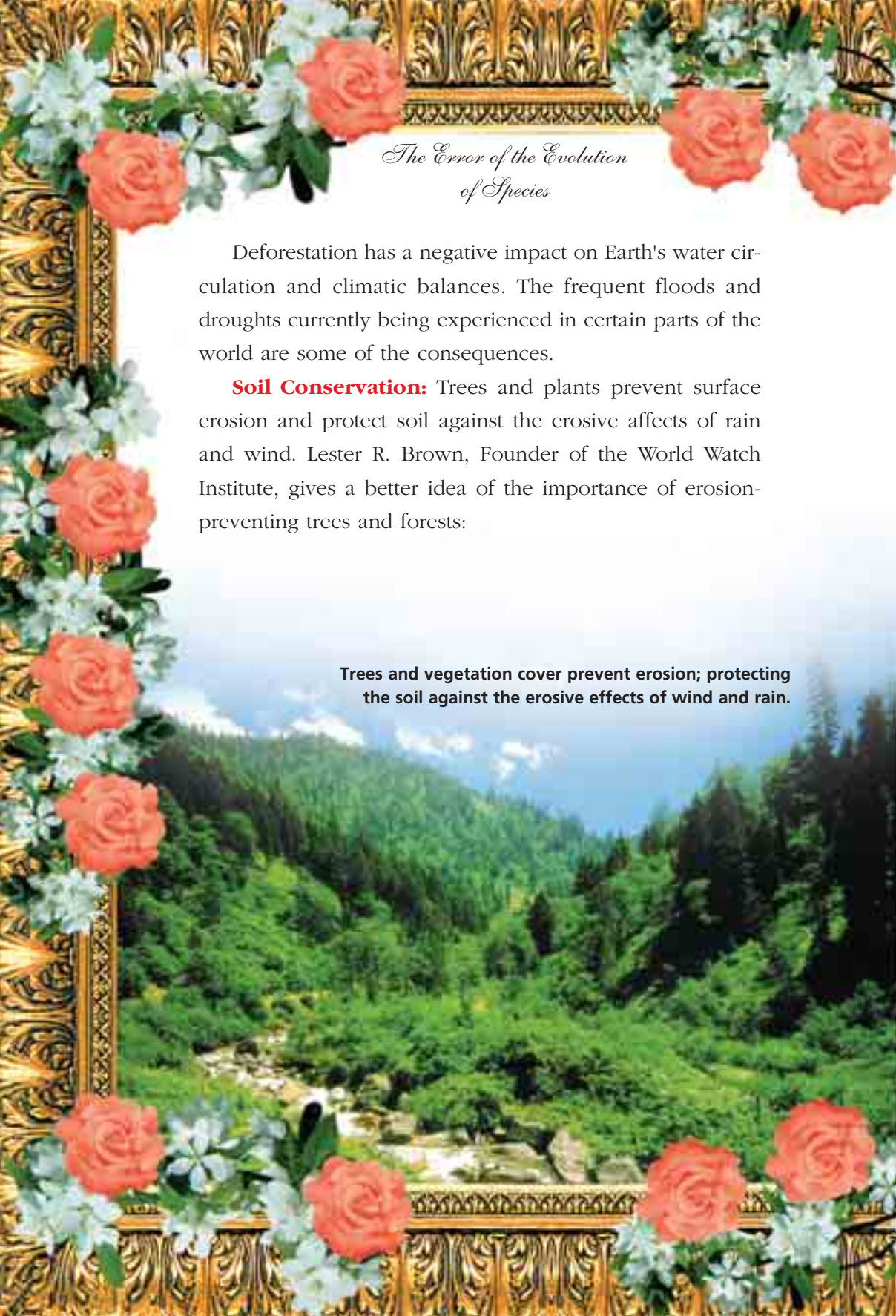
The following case will help clarify the economic implications of the sea, land and atmosphere constantly being cleaned by living things. When the quality of water in New York City recently dropped, officials had two alternatives: One was a water-purification plant costing $6 to 8 billion. The other was the natural improvement of the reservoir carrying water to the city and of the water itself, to cost $1 to 1.5 billion. In the light of these findings, the New York authorities decided to improve the reservoir, because their study showed that this would save $6 billion over 10 years.[157]

Climate Regulation: Trees, plants and forests play a part in balancing the Earth's climate structure. Forests stabilize the humidity level in the air; in summer, they reduce the temperature by 5 to 8.5 degrees Centigrade (41 to 47 degrees Fahrenheit), and in winter they raise it by 1.6 to 2 degrees (34.7 to 35.6 degrees Fahrenheit), thus moderating heat and cold.[158]

Trees, plants and forests play a role in the maintenance of planet Earth with its balanced climatic structure. The frequent floods and droughts in various parts of the world are a result of the destruction of forests.

Deforestation has a negative impact on Earth's water circulation and climatic balances. The frequent floods and droughts currently being experienced in certain parts of the world are some of the consequences.

Soil Conservation: Trees and plants prevent surface erosion and protect soil against the erosive affects of rain and wind. Lester R. Brown, Founder of the World Watch Institute, gives a better idea of the importance of erosion-preventing trees and forests:



Trees and vegetation cover prevent erosion; protecting the soil against the erosive effects of wind and rain.

Although oil is the first major resource whose supply has been restricted enough to measurably constrain economic expansion, over the long term, the loss of topsoil through erosion is likely to be more important. [159]

Soil enrichment: The subsoil is full of species that, despite their very small size, perform great tasks and prevent the soil losing productivity. Worms, ants and other animal species mix the soil, aerating and enriching it. The worms in one hectare of land digest up to 10 metric tons of soil a year, and make it more fertile by plowing it up.[160]

Professor Wilson describes the living species that live in the depths of the soil, most of them unknown to us, but which are nevertheless of the greatest importance:

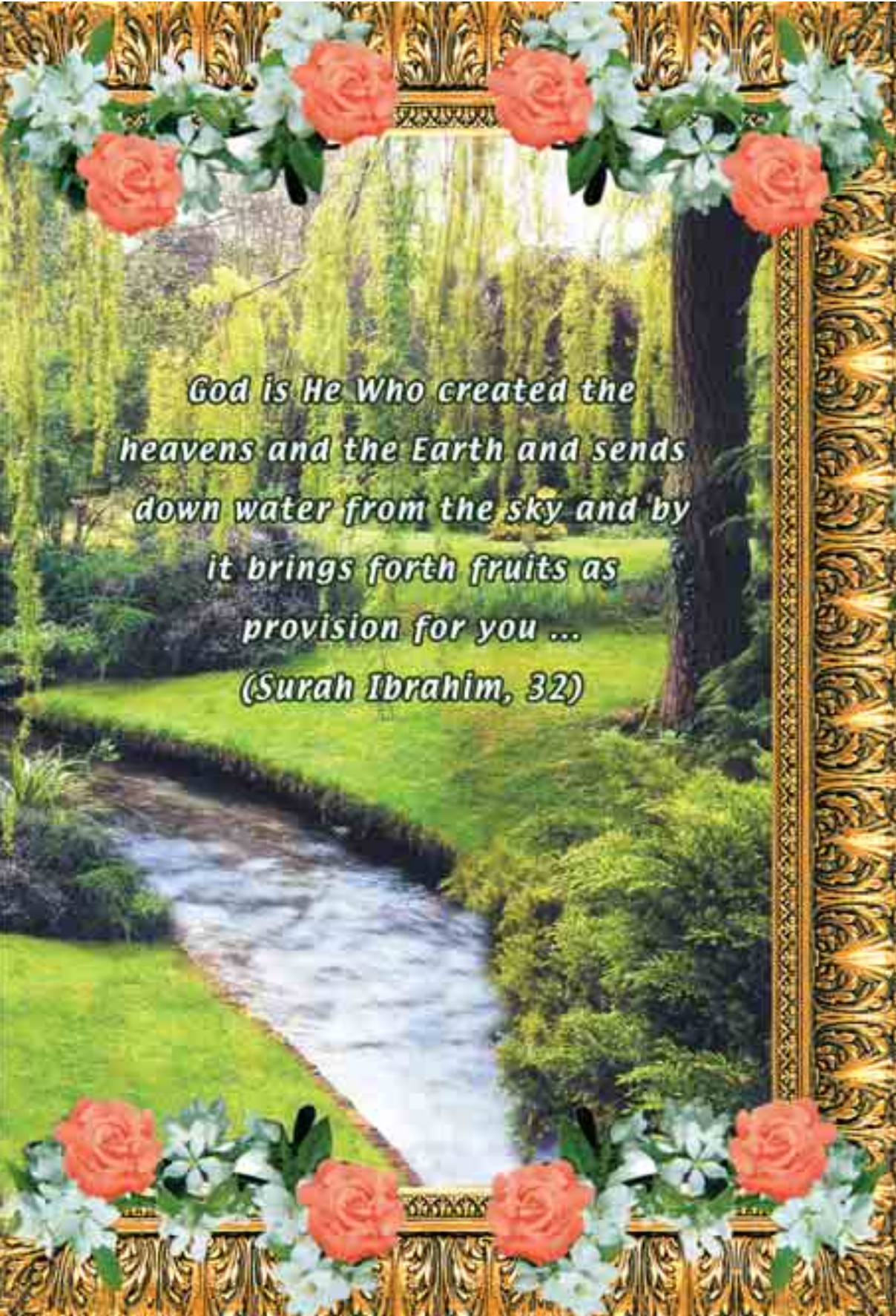
When you scoop up a double handful of soil almost anywhere except in the barren deserts, you will find thousands of invertebrate animals, ranging in size from clearly visible to microscopic, from ants and springtails to tardigrades and rotifers. The biology of most of the species you hold is unknown: We have only the vaguest idea of what they eat, what eats them, and the details of their life cycle, and probably nothing at all about their biochemistry and genetics. Some of the species might even lack scientific names. We have little concept of how important any of them are to our existence. Their study would certainly teach us new prin-

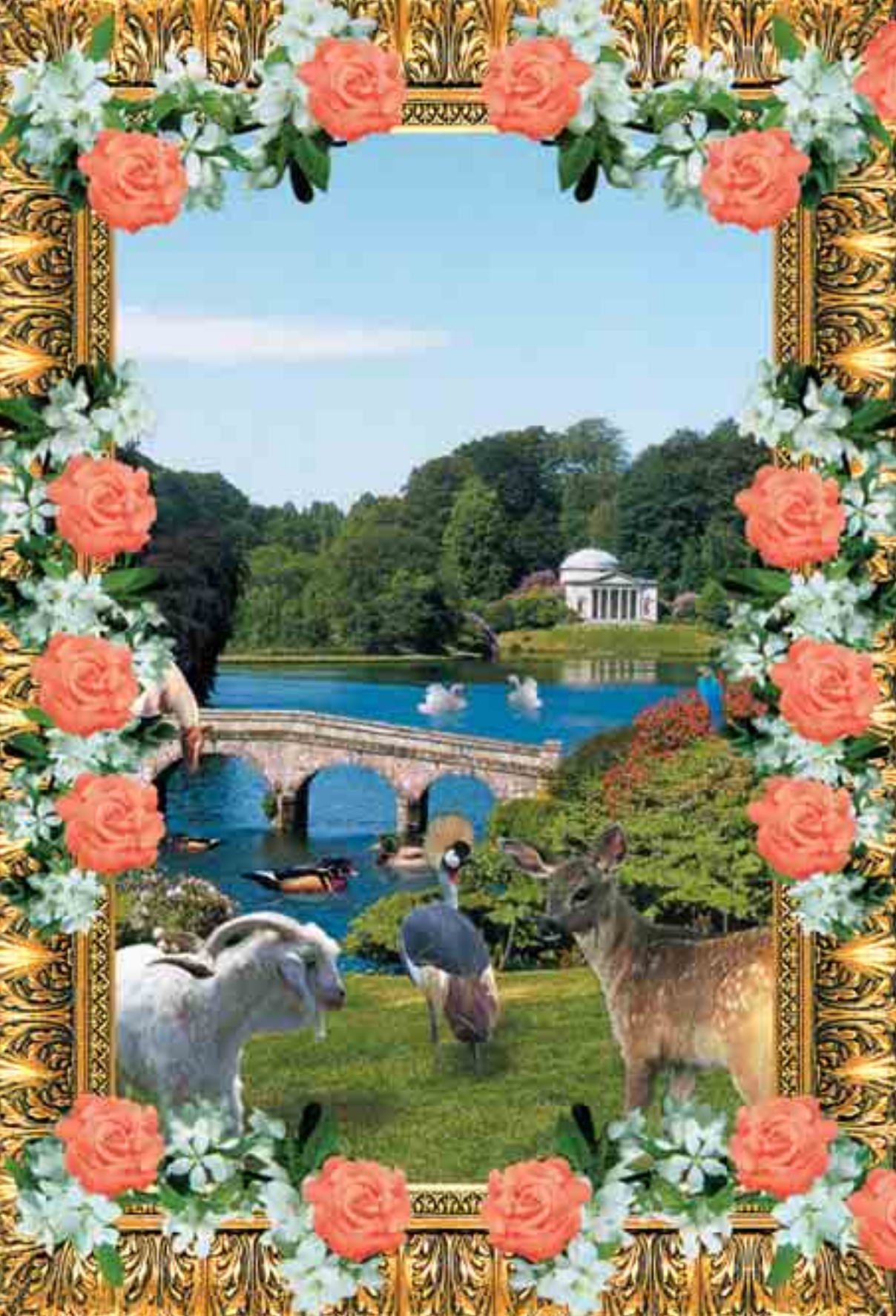
ciples of science to the benefit of humanity. Each one is fascinating in its own right.[161]

What we have cited here represents only a very small part of the services provided by living things. The significance of all this information is clear: We survive thanks to living things that perform tasks more valuable than we can ever imagine. It is God, Lord of the worlds, Who creates all this magnificent variety of life that permits our own survival in flawless harmony.

No doubt, what we obtain from biodiversity are some of the countless blessing created by God for human beings. The size of the blessings He has bestowed is revealed in a verse:

He has given you everything you have asked Him for. If you tried to number God's blessings, you could never count them. Man is indeed wrongdoing, ungrateful. (Surah Ibrahim, 34)


God is He Who created the
heavens and the Earth and sends
down water from the sky and by
it brings forth fruits as
provision for you ...
(Surah Ibrahim, 32)



CHAPTER 3.

EVOLUTION'S SPECIATION DILEMMA

According to the theory of evolution, all living things have descended from one another. Initially, a single-celled organism developed out of inorganic substances, and this gradually turned into another, and all subsequent species eventually developed in this way. According to the theory, this process covered a period as long as 3.7 billion years and took place in stages. Therefore, according to the theory proposed by Darwin, the extraordinary variety of life is simply a product of natural processes and random effects.

However, scientific findings completely refute this claim. Many branches of science, such as paleontology, genetics and biochemistry, clearly show that not one single living species, let alone biodiversity, can be accounted for in terms of evolution..

In dealing with the invalidity of Darwinism's

claims regarding speciation, let us first provide some general information about biological classification.

Classification of Living Creatures

Try writing down the names of all the animals, plants and micro-organisms you have ever encountered or heard of. No matter how long your list, it will represent only a very small fraction of the living species on Earth. Suppose that others from different countries have also prepared such a list. A more comprehensive list may emerge when these are all combined together. But this time, the list will become confused because of some of the same life forms will be referred to by different names, or different ones by the same name.

To overcome these difficulties, biologists give every plant and animal a scientific name, such that all organisms are described according to a binomial classification system. The first word is generally Latin—a practice left over from the days when Latin was an international language. For example, the dogs you see every day are Latin-named *Canis familiaris*, and cats are *Felis catus*.

The animal kingdom contains more than a million described species, making it the largest of the kingdoms.

Scientific nomenclature makes it possible to distinguish between species whose common names are often confused. For instance, the bird known as the robin in Europe is different from the bird known by that name in America. Confusion has been prevented by giving these separate species different names. The European robin is properly known as *Erithacus rubecula*, and its *American* counterpart as *Turdus migratorius*.[162]

In addition to naming species both living and extinct, scientists also describe and classify them according to specific criteria. The science of naming, describing and classifying living things is known as *taxonomy* or *systematics*. For example, animals are classified according to such criteria as their body structures and systems, internal organs, developmental stages, behavior and genetic information. Information about extinct species is obtained from fossils.

The classification system in question consists of hierarchical categories, or seven main groups. In descending order of size, these are:

Kingdom
Phylum (plural: phyla)
Class
Order
Family
Genus (plural: genera)
Species

Every living thing occupies its own particular position in all of the above seven groups. (There are also sub-categories within this hierarchical classification.) For example, the tree we commonly refer to as the white pine is a member of the plant kingdom and of the phylum *Tracheophyta*. It is also a member of the class *Pteropsida*, the order *Coniferales*, the family *Pinaceae*, the genus *Pinus* and the species strobus.

The scientific name of the wolf, a carnivorous canine, is *Canis lupus*; it is also a member of the phylum of mammals, the order Carnivora, the family *Canidae* and the genus *Canis*.[163]

In this classification system, the largest unit is kingdom. Until the 20th century, most biologists divided the world of living things in two—either plants or animals. In the last century, however, progress in the fields of microbiology and biochemistry in particular revealed that this simple division didn't go far enough. Today, a five-kingdom classification is generally agreed upon. In addition to plants and animals, the fungi, protista and monera are also regarded as separate kingdoms.

The *animal kingdom*, containing more than 1 million described species, is the largest, made up of multi-celled organisms that digest food, generally move, and have complex systems and organs. The *plant kingdom* contains more

than 260,000 species, which produce their own food by means of the exceedingly complex process of photosynthesis, and also meet the nutritional needs of other organisms. *Fungi*, which are not capable of photosynthesis and have no digestive systems such as those in animals, are a kingdom with some 100,000 members.

The *Protista* kingdom consists mainly of single-celled organisms with a cell nucleus, such as algae and diatoms. Some 100,000 members of this kingdom are known to exist. *Monera*, on the other hand, consists of single-celled organisms that lack any nucleus, such as bacteria: Some 10,000 species of this kingdom have been described.

In biological classification, the kingdoms are followed by phyla, whose number varies according to different biologists. Still, the classification of 32 animal phyla and 10 plant phyla is generally accepted. In the animal kingdom, all species in a particular phylum possess a similar body structure, although phyla are very different from one another.

For example, the phylum that includes sponges is completely different from the phylum *Chordata*, which includes vertebrates—fish, mammals, birds and reptiles. The insects we are familiar with are of the phylum *Arthropoda*, the largest phylum in the animal kingdom, which also includes marine crustaceans.

Living things belonging to a particular class share many more common features than do members of a phylum. For example, birds, reptiles and mammals are all members of the phylum *Chordata*, but belong to different classes. Birds, which have wings and also feathers—a structure not to be found in any other animal group—are members of the class Aves. Reptiles, members of the class *Reptilia*, lay eggs, are cold-blooded and covered in scales. Mammals are members of the class *Mammalia*, and give birth to and suckle their young, are warm- blooded and generally covered in fur.

In biological classification, a class is divided into orders. The mammals with which we are familiar consist of 23 different classes. Those that feed on insects, like the mole and hedgehog, are members of the class *Insectovira*. Rodents

such as mice and squirrels belong to the class *Rodentia*, and meat-eaters such as dogs and wolves belong to the class *Carnivora*.

The next rank is the family. Mammals, for instance, comprise more than 100 families. Though cats and dogs both belong to the class *Carnivora*, cats are members of the family Felidae, and dogs of the family Canidae.

Genera consist of living groups that bear a close resemblance to one another, but which are not generally able to crossbreed—dogs and foxes, for example, and different genera within the family Canidae. Dogs belong to the genus *Canis*, and foxes to the genus *Vulpes*.

The *species* is the basic unit in biological classification. A species may be described as a community of individuals that are able to reproduce among one another and share the same functional characteristics. Breeds or varieties within the same species typically have different scientific names. For example, the red fox is known as *Vulpes vulpes,* the desert fox as *Vulpes zerda*, and the long-eared fox as *Vulpes macrotis*. If there are different groups or varieties within a living species, each of these groups constitutes a different sub-species.

Living things are described and classified by biologists

known as taxonomists. They divide into species those populations that mate only among themselves in nature, which give rise to viable offspring, and which resemble one another in terms of structural and functional properties. They determine the classification, such as the specific genus to which a species belongs, and which genera belong to which families.

Classifications by different taxonomists are basically similar, but still exhibit important differences. For example, five species may be grouped under one, two or three different genera. That is why scientists often differ and disagree regarding the classification of different living things.[164]

The Founders of Taxonomy

The classifications outlined above are vital in terms of scientific research and study. Some, however, imagine that classification is a part of the theory of evolution. The reason for this is evolutionist propaganda. Modern taxonomists are largely evolutionist biologists; and as a result, taxonomy and evolution are generally referred to in the same breath. Yet this is a grave error.

The foundations of taxonomy were laid before Darwin's theory of evolution was put forward. In addition, the

founders of taxonomy were scientists who believed in God and creation.

The British scientist and theologian John Ray (1627-1705) led the way in classifying living things, in the sense this is understood today.[165] Ray grouped plants, birds, mammals, fish and insects according to systematic criteria. Rather than classifying plants based on a single feature, he considered their structures in their entirety. He wrote several books on the subject, thus laying the foundations of the science of taxonomy. In his writings, he also set out his observations of the magnificent order in nature.[166] Ray, who is remembered for his enormous contributions to science, stated that the systems and characteristics in living things were all marvels of creation, and expressed his views in these terms:

> *There is for a free man no occupation more worthy and delightful than to contemplate the beauteous works of nature and honour the infinite wisdom and goodness of God.*[167]

The scientist regarded as the father of the modern biological classification system is the Swedish naturalist Carl Linnaeus (1707-1778),[168] who first used the two-part scientific nomenclature system and developed a classification based on hierarchical categories. He gave a great many

species their scientific names (such as *Homo sapiens* for human beings).[169] The year 1753, the year when the 10th edition of his book *Systema Naturae* was published, is regarded as the start of the science of taxonomy.[170]

Linnaeus named and classified plant and animal specimens collected by himself and his students from all over the world, paying close attention to their structural similarities and differences. The system he developed is still in use, largely unaltered, today. So successful is his system in the description and classification of living things that he has become one of the most eminent figures in the history of science.

Linnaeus believed that God created living things and that species do not change. He summed up his research in these words: "There are as many species as the Infinite Being produced diverse forms in the beginning."[171] According to him, classification revealed the Divine Order of God's creation.[172] The interrelated hierarchy in living things was a sign of creation in God's flawless order and harmony, and not of evolution, as Darwin later believed. In his books, Linnaeus frequently stated that the magnificent plan he observed in the natural world could have come into being only through God's creation.

Classification Is Proof of Creation

But the division of living things into hierarchical groups means something entirely different to evolutionists, who claim that biological classification is evidence for evolution. The Turkish biologist Ali Demirsoy, for example, makes this claim:

> *The characteristic of living things is that they are arranged according to a specific hierarchy in such a way as to form species, genera, families, orders, classes and kingdoms. Hierarchical arrangement is one of the most evident proofs of evolution. Were plants and animals not related among themselves, this hierarchical order could not have come about, and many groups would have developed in forms dissimilar to one another.*[173]

Darwin and his followers attempted to use the work of such scientists as Ray and Linnaeus by distorting it. They portrayed similar structures among living things, and the classifications based on them, as evidence that living things

The hierarchical classification of motor vehicles does not suggest that they came into being spontaneously or by chance. On the contrary, it demonstrates that they were produced consciously by human beings according to specific blueprints. Living things on Earth can also be classified, because they came into being through the creation of Omniscient God, not as the result of unconscious coincidences.

were descended from a common ancestor.

In fact, however, a scientific explanation for similar structures among living things had been made before Darwinism came to dominate the scientific world. Natural scientists such as Carl Linnaeus and John Ray regarded the matter of similar characteristics among living things as an example of *common creation*. In other words, organs were similar not because they had evolved from a common ancestor, but because they had been created individually to serve a specific purpose. Modern scientific discoveries have confirmed this.[174]

Clearly, the classification of living things cannot be used as evidence in favor of evolution. For example, in his book *Evolution: A Theory in Crisis*, Professor Michael Denton examined this claim in the light of the scientific data and concluded that the hierarchical structure was no proof of evolution.[175]

Michael Denton

The fact is that in clutching at classifications, evolutionists are making a serious mistake. Products of artificial design—such as automobiles, furniture and

Individual species of fruits and vegetables have genetic variations within themselves that give them different tastes, nutritional values and characteristics.

paintings can also be classified hierarchically amongst themselves. Yet this does not prove that they came into being spontaneously or by chance; on the contrary, it demonstrates that they were designed and produced by conscious human beings, according to a specific blueprint. Living things on Earth can be classified too, but that's because they exist by being created by Omniscient and Almighty God, and not through unconscious coincidences as maintained by evolution.

Following this general outline of biological classification, let us now examine Darwinism's main difficultyin the light of modern scientific findings.

The Meaning of Variations

When Darwin's book T*he Origin of Species* was published in 1859, he imagined that his theory could account for life's extraordinary diversity. He had observed that there were natural variations within a living species. Visiting animal fairs in England, for instance, he noted that breeds of cattle were very different, and that farmers could produce

All human beings in the world have basically the same genetic information. Yet thanks to the potential variations permitted by that genetic information, some have almond-shaped eyes, others have red hair, while still others are tall in stature.

new breeds by selective crossbreeding. With this as his starting point, he then pursued the following logic: "Since living things can exhibit variety within themselves, then all of life can have descended from a single common ancestor of the course of long periods of time."

The fact is, however, that his hypothesis did not actually account for the origin of species at all. As the science of genetics advanced, it realized that variation within a species could never lead to a new species emerging. What Darwin imagined to be evolution was in fact *variation.*

Variation is a genetic phenomenon that causes individuals or groups within a species to exhibit different characteristics. For example, all the humans on Earth possess basically the same genetic information. But thanks to the variation potential that genetic information permits, some have dark skin, others red hair or blond, and some are tall in stature.

Variation can be very high even within a single species: Not only is there variation amongst humans in the genera and species of the bacteria that invade or live within us, but the organisms themselves often are highly diverse.[176] For example, in dogs, one of the living species most familiar to us,

The majority of natural populations display a high degree of variation.. There are many different varieties within the species of domesticated dog, of which we are particularly familiar.

there are a large number of variations: bulldogs, Italian poodles, German shepherds, Turkish Kangals, Dalmatians, Chows, Shih Tzus and many more such breeds. There are also many varieties in the fruit and vegetables we eat every day, with different tastes, nutritional contents, shelf lives and other characteristics.

But such variation represents no evidence for evolution. It represents only the emergence of different combinations of *already* existing genetic information, and does not endow resulting offspring with any new genetic information. The crucial question for the theory of evolution is of how brand-new information that can create—and define—a brand-new species could come into being.

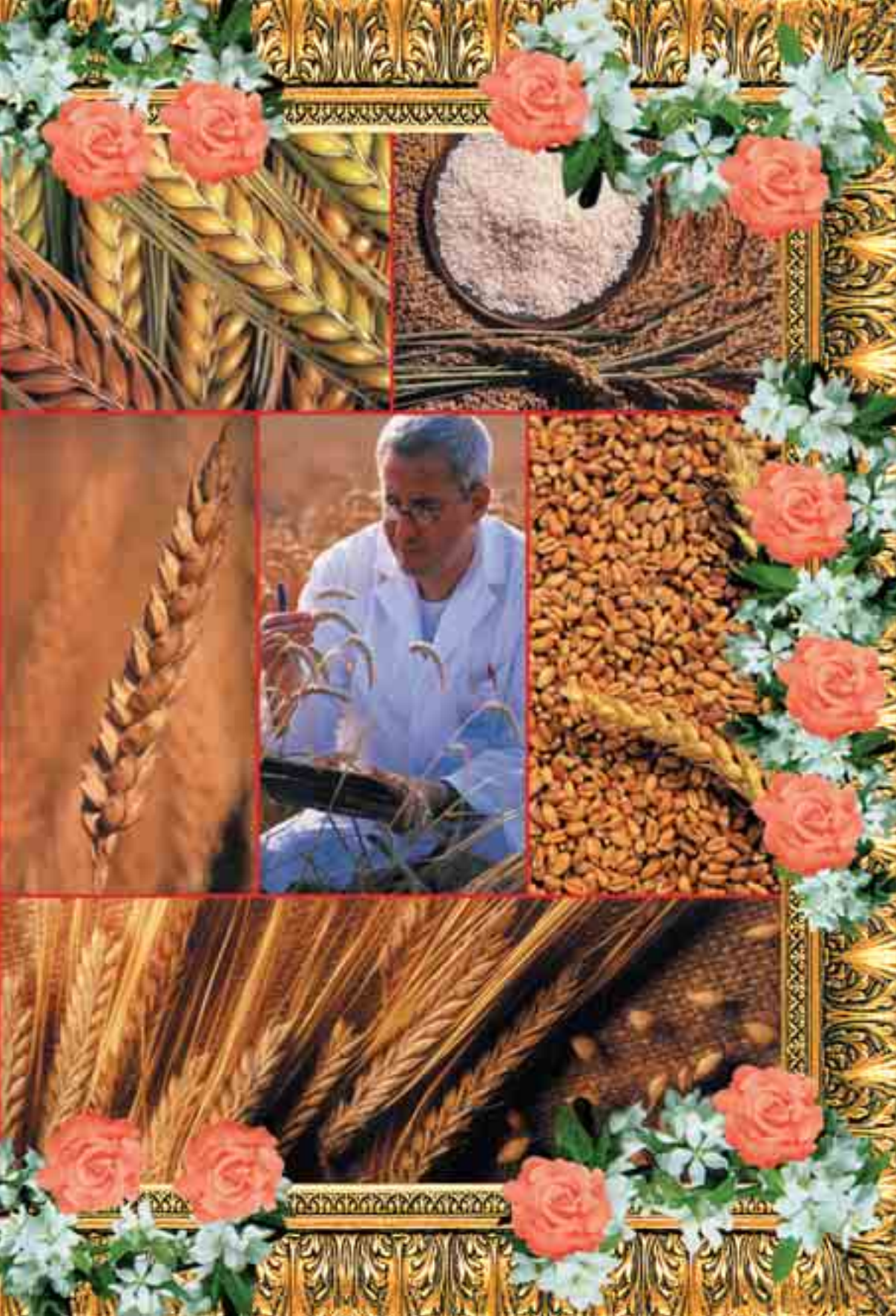
Variation always takes place within the boundaries of genetic information, which bounds are referred to as the *gene pool*. All the characteristics in a living species' gene pool may emerge at various times, in various forms, thanks to variation. As a result, for example, breeds of reptiles may emerge with a longer tail or slightly shorter legs than others of their species, but the genetic information for a long tail or short legs already exists in the reptiles' gene pool. Yet

Variations give rise to certain observable changes within the limits of a species' genetic information, but they never impart new genetic information to a given species. The roses shown opposite verleaf possess different features from one another. Yet they are all still the same species of rose, and can cross-pollinate with one another.

variation cannot transform reptiles into birds by fitting them out with wings, adding feathers to them and altering their metabolisms. That's because such a transformation requires an increase in genetic information, but in variation, there is no question of such a thing occurring..

Darwin was unaware of all this when he launched his theory. At the time, it was believed that variations had no bounds. In 1844 he wrote: "That a limit to variation does exist in nature is assumed by most authors, though I am unable to discover a single fact on which this belief is grounded."[177] In *The Origin of Species* he attempted to portray various examples of what were actually variation as the greatest evidence for his theory. In Darwin's view, for instance, crossbreeding different variations of cattle in order to produce cows with a greater milk output would eventually turn cattle into an entirely new species. The best expression of Darwin's idea of "unbounded change" is in these words from *The Origin of Species*:

Variation within a species does not constitute evidence for evolution because such variation results from the emergence of different combinations of genetic information that already exist. Variations cannot add any new genetic information—they can shuffle the cards in a variety of different ways, but cannot add any new cards to the deck. Highly useful hybrids of wheat have been achieved through various cross-breeding techniques, but the wheat is still wheat, and not a new species.



I can see no difficulty in a race of bears being rendered, by natural selection, more and more aquatic in their structure and habits, with larger and larger mouths, till a creature was produced as monstrous as a whale.[178]

The reason why Darwin was so confident in his examples lay in the primitive level of scientific understanding in his day. As the result of similar experiments on living things, however, 20th century science revealed the principle known as genetic *homeostasis*[179]. This principle revealed that all attempts at crossbreeding were insufficient to change a living species and that between species, there were insuperable genetic barriers. In other words, the livestock breeders who mated different variations of cattle could not have produced another new species, as Darwin claimed. This was absolutely impossible.

Norman Macbeth, author of the book *Darwin Retried*, has this to say:

The heart of the problem is whether living things do indeed vary to an unlimited extent... The species look stable. We have all heard of disappointed breeders who carried their work to a certain point only to see the animals or plants re-

Variations can never give species totally new characteristics. For that reason, no variation is an example of evolution. No matter how often you cross-breed different breeds of horse, the results will still be horses, and no new species will emerge.

vert to where they had started. [180]

Luther Burbank, one of the most eminent authorities in the field of livestock raising, wrote that "there are limits to the development possible, and these limits follow a law."[181]

The biologist Edward Deevey describes how variation always takes place within specific genetic bounds:

> *Remarkable things have been done by cross-breeding... but wheat is still wheat, and not, for instance, grapefruit. We can no more grow wings on pigs than hens can make cylindrical eggs.*
>
> *A more contemporary example is the average increase in male height that has occurred the past century. Through better health care (and perhaps also some sexual selection, as some women prefer taller men as mates), males have reached a record adult height during the last century, but the increase is rapidly disappearing, indicating that we have reached our limit.* [182]

In short, variations give rise to certain changes that always remain within the genetic limits of a species, but never impart to that species any new genetic information. That is why no variation represents an example of evolution. No matter how much you crossbreed different breeds of dogs or horses, the results will still be dogs or horses. No new species will ever appear, as the agricultural scientist Dr. Don

Batten summarizes:

> *... variation within a kind, such as through breeding or adaptation, is not evolution. All the biological genetic "evidence" for evolution is actually variation within a kind, not evolution at all.* [183]

The Micro- and Macro-Evolution Errors

As you see, the science of genetics has revealed that the variations that Darwin imagined accounted for the origin of species in fact bear no such significance.

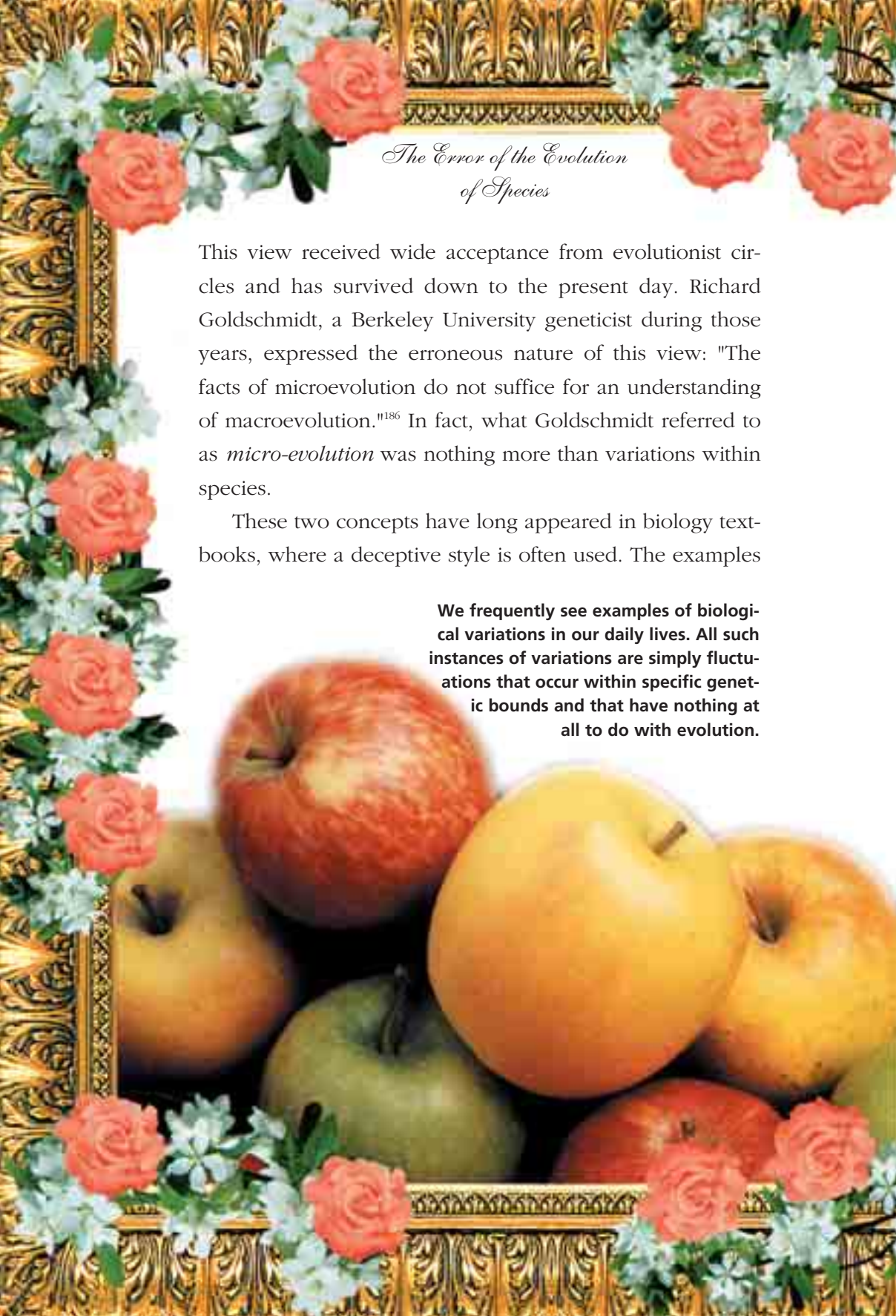
Therefore, evolutionist biologists have been forced to distinguish between variation within species and the formation of new species, and to advance two separate concepts regarding them. They gave the name *micro-evolution* to variation within species, and defined the formation of entirely new species as *macro-evolution.*

The concept of macro-evolution was first used in 1927 by the Russian biologist Juri'i Filipchenko.[184] The idea that micro-evolution could be used as evidence for macro-evolution was proposed by a student of Filipchenko's, Theodosius Dobzhansky, in the 1930s. In his book *Genetics and The Origin of Species*, one of the basic texts of Darwinism, Dobzhansky suggested that the mechanisms of micro- and macro-evolution were the one and the same.[185]

This view received wide acceptance from evolutionist circles and has survived down to the present day. Richard Goldschmidt, a Berkeley University geneticist during those years, expressed the erroneous nature of this view: "The facts of microevolution do not suffice for an understanding of macroevolution."[186] In fact, what Goldschmidt referred to as *micro-evolution* was nothing more than variations within species.

These two concepts have long appeared in biology textbooks, where a deceptive style is often used. The examples

We frequently see examples of biological variations in our daily lives. All such instances of variations are simply fluctuations that occur within specific genetic bounds and that have nothing at all to do with evolution.



of variation that evolutionist biologists describe as micro-evolution actually have nothing whatsoever to do with the theory of evolution. That's because the theory of evolution maintains that living things can acquire new genetic information through the mechanisms of mutation and natural selection. But as we have already seen, variations can never give rise to any new genetic information and therefore, cannot lead to *evolution*. Referring to variations as *micro-evolution* reflects an ideological preference on the part of evolutionist biologists.

There is no difference between Darwinist claims about "macro-evolution" and fairy tales in which frogs turn into princes.

The variations that they deliberately refer to as micro-evolution are a simple biological phenomenon, examples of which we encounter frequently in daily life. (Think of all the varieties of cats, dogs, apples, tomatoes, plants and animals you have ever seen.) Macro-evolution, on the other hand,

refers to major changes such as that of a dinosaur into a bird, or a bear into a whale. In other words, there is no difference between the claims of macro-evolution and fairy tales in which a frog transforms into a prince.

By using the concept of macro-evolution, evolutionist biologists seek to give the impression that is variations can give rise to brand new living species—and even genera—over the course of time. Indeed, many people who lack a sound knowledge of the subject are taken in by the superficial idea that micro-evolution can become macro-evolution in the long term. One can see many examples of this thinking. Some amateur evolutionists suggest that since the average height of human beings has increased by 2 centimeters (0.78 of an inch) over just the last century, that means that all kinds of evolution can occur over millions of years. But the fact is, as we have already seen, all variations such as increases in stature take place within specific genetic bounds and have nothing to do with evolution.

In fact, even contemporary evolutionist authorities accept that the variations described as micro-evolution cannot give rise to new living classes, or lead to macro-evolution. In a 1996 paper published in the journal *Developmental Biology*, the evolutionist biologists Scott Gilbert, John Opitz and Rudolf Raff stated that:

The Modern Synthesis is a remarkable achievement. However, starting in the 1970s, many biologists began questioning its adequacy in explaining evolution. Genetics might be adequate for explaining microevolution, but micro-evolutionary changes in gene frequency were not seen as able to turn a reptile into a mammal or to convert a fish into an amphibian. Microevolution looks at adaptations that concern only the survival of the fittest, not the arrival of the fittest. As Goodwin (1995) points out, "the origin of species—Darwin's problem—remains unsolved.[187]

That the variations known as micro-evolution cannot account for the claim of macro-evolution, and cannot explain the origin of species, is also admitted by other evolutionist biologists. The well-known evolutionist paleontologist Roger Lewin set out his conclusion at a four-day symposium attended by 150 evolutionists at the Chicago Museum of Natural History in November 1980:

The central question of the Chicago conference was whether the mechanisms underlying microevolution can be extrapolated to explain the phenomena of macroevolution ... The answer can be given as a clear, No. [188]

The evolutionist biologists Fagerstrom, Schuster and Szathmary stated the same thing in an article published in *Science* magazine in 1996:

Major transitions in evolution—such as the origin of life,

the emergence of eukaryotic cells, and the origin of the human capacity for language, to name but a few—could not be farther away from an equilibrium. Also, they cannot be described satisfactorily by established models of microevolution. [189]

In short, micro-evolution is a biological phenomenon, and macro-evolution is an unscientific dogma—two entirely distinct concepts. Nonetheless, many evolutionists still believe that these two concepts are one and the same thing, and that micro-evolutionary changes can turn into macro-evolutionary ones over long periods of time.[190]

Other scientists, however, are aware that such a claim totally conflicts with the picture revealed by scientific findings and the fossil record. Douglas Erwin, from the American Museum of Natural History emphasized this in a paper that appeared in the journal *Evolution and Development* in 2000.[191] According to the American biologists Douglas Erwin and James Valentine, to account for the origin of new physical characteristics with micro-evolutionary changes that are in fact nothing more than variations within species is incompatible with the available evidence.[192]

The fact is, macro-evolution has never been observed. There is no explanation compatible with reason, logic and science as to how this might take place. Professor of Microbiology Carl Woese expresses his view on the subject:

"[T]he term 'macroevolution' serves more to hide our ignorance than symbolize our understanding."[193]

Consider the subjects depicted by evolutionists as concrete and observed instances of Darwinism, which they put forward at every opportunity as fundamental proofs of evolution. The Galapagos finches, the Industrial Revolution moths, bacterial resistance to antibiotics, and insects' resistance to DDT immediately come to mind, but it is absolutely misleading to portray these as evidence of evolution. These cases are cases of variations, or micro-evolution, that present no evidence for evolution. The Galapagos finches and the Industrial Revolution moths will be discussed later in this book, where we make it clear that these life forms constitute no evidence for the theory of evolution. (For biological resistance to poisons, see *Darwinism Refuted* by Harun Yahya, New Delhi: Goodword Books, 2002.)

The Speciation Deception

Evolutionists maintain that the first single-celled organism emerged billions of years ago from inorganic substances, and that the glorious diversity of life on Earth, emerged over the course of hundreds of millions of years. Note that according to the Darwinist claim, millions of

species formed from one single species under the influence of natural processes and coincidence. As this irrational and unscientific claim shows, the formation of species—that is, speciation—represents the basis of the theory of evolution. It is particularly clear that a claim not based on concrete evidence, observations and scientific research is of no value at all. Darwinism's claim that one species turned into millions of other species is a huge one that requires countless amounts of evidence and findings. In fact, though, there is not a single piece of scientific evidence for evolutionists' claims regarding speciation ever since the time of Darwin, evolutionists have produced a conceptual confusion and depict variations as evidence for speciation.

First let's consider the concept of species to get a better understanding of the evolutionist deception. Descriptions have been produced by various experts from different biological fields. As put by Troy Wood and Loren Rieseberg of Indiana University, "Evolutionary biologists have proposed a diverse, almost innumerable list of species concepts…"[194]

Biologist John Endler explains the complication as follows:

> *Species are "tools that are fashioned for characterizing organic diversity" (Lewin, 1979). Just as there are a variety of chisels made for different purposes, different species con-*

cepts are best for different purposes; and just as it is inadvisable to use a carving chisel to cut a mortise, problems arise when one species concept is used when it is inappropriate. Confusion and controversy have often resulted because different people working with different groups of organisms mean different things by "species."[195]

Ali Demirsoy, one of Turkey's most prominent exponents of Darwinism, expresses the truth of the matter this way:

The question of by what bounds the species, the basic unit in the classification of plants and animals, should be separated from other species—in other words, "Species Definition"— is one of the most difficult for biology to answer. It appears impossible in the present state of our knowledge to give a definition of the species that applies to all plant and animal groups.[196]

Mention the word species, and most people will think of *life forms* such as dogs, horses, spiders, dolphins, wheat or apples. However, biologists define the concept of species in a rather different way. In modern-day biology, a living species in the most general sense consists of a population of individuals able to mate and reproduce with one another. This definition divides life forms that we generally speak of as if they were one single species into a number of dif-

ferent ones. For example, some 34,000 species of spiders have been described.[197]

To better understand the evolution deception regarding speciation, we first need to define *geographic isolation*. Within any living species, there will be differences stemming from genetic variation. If geographical obstacles such as a mountain chain or river arise between individuals of a species, and if they become isolated from one another, then in all likelihood, within these two separated groups, different variations will begin to dominate.[198]

Assume that in one group (variation A), darker skin and longer fur begin to predominate; and that another group (variation B) has shorter fur and lighter color. The longer the two populations remain separated from one another, the sharper variations A and B will become.[199] Variations like these, with clear morphological differences despite their belonging to the same species, are known as *subspecies*.

At this point, the speciation claim enters the picture. Sometimes, after variations A and B have split away from one another due to geographic isolation and are brought

We often commonly refer to various members of a class or order as one single species—when these are actually a considerable number of species with subtle differences to distinguish them. For example, some 34,000 species of spider have been identified, but in daily life we describe most of them simply as "spiders."

back together again, their members are unable to interbreed with one another. Since they cannot mate, they cease being subspecies, according to the biological definition, and become *separate species*. This is known as speciation.

Evolutionists take this concept and extrapolate it "Look! There is speciation in nature. In other words, new species emerge through natural mechanisms. So all species must have come into being in this same way." In fact, however, a serious deception is being perpetrated here, because important points are being overlooked or ignored:

1) Variations A and B, after being isolated from one another, may be unable to mate when reunited again. Yet this phenomenon generally stems from mating behavior. In other words, individuals belonging to variations A and B regard each other as foreigners by the other, and thus feel no inclination to mate with others that they perceive as different—even though there is no genetic incompatibility to prevent it. In terms of genetic information, they all remain members of the same species. (For this very reason, the concept of species remains a subject of debate in biology.)

2) The really important factor is that this speciation means a loss of genetic information, rather than an increase. The two variations have separated, but the rea-

son for their division is not that either one has acquired any new genetic data. Neither variation has acquired any proteins or new enzymes, much less a new organ. There is no development here. On the contrary, instead of a previous population that contains different, possibly recessive, pieces of genetic information (using our example, a population with both long and short fur, and dark and light coloration), there are now two populations that is each relatively impoverished in terms of genetic data.

Therefore, nothing about speciation provides any support for the theory of evolution. Because it claims that all living species developed by chance, from the simple to the more complex, therefore, in order for the theory of evolution to be taken seriously, it needs to demonstrate mechanisms that can *increase* genetic information. The bifurcation of an existing species because of a loss of genetic variation, obviously, a different phenomenon entirely.

Evolutionists actually admit this lack of relevance. For that reason, evolutionists describe examples of variations within a species, and speciation by division into two populations (as you saw in the previous section) as *micro-evolution*—in the sense of variation within a species that already exists. However, the use of the word "evolution" in the term is deliberately misleading, because no evolutionary process is happening at all. The situation consists

of only various combinations and distributions of genetic information already existing in that species' gene pool.

Then how did living types first emerge? How did the five kingdoms—monera, protista, fungus, plant and animal—emerge on Earth? How did the higher categories—the phyla, classes, orders, families; and for that matter, such basic categories as mammals, birds, vertebrates and crustaceans—first appear? These are the questions that evolutionists need to address.

As already stated, evolutionists refer to these subjects as macro-evolution, which is actually what they mean by the theory of evolution, because the genetic variations that Darwinists insist on calling "micro-evolution" are biological phenomena that everyone can observe and agree on. And no matter how much evolutionists employ the term *evolution* in describing such phenomena, they actually have nothing to do with evolution at all. On the other hand, the macro-evolution claim, has no supporting evidence, either in biological observations or in the fossil record.

People lacking sufficient information on the subject may well fall into the error of thinking that "Since micro-evolution takes place in a very short space of time, macro-evolution could take place over tens of millions of years." Some evolutionists fall into the exact same error

or seek to make use of it to convince others of the truth of their theory. All the so-called *proofs* of evolution proposed by Charles Darwin in *The Origin of Species* are of that kind, as are the examples put forward by later evolutionists. In their examples, they seek to use as evidence for their theory the genetic variety that they describe as *micro-evolution* but which actually has nothing at all to do with what they describe as *macro-evolution*.

Despite all this discussion of micro- and macro-evolution and speciation, living things appeared on Earth as *types* with their own different structures (as is confirmed by the fossil record). Different variations and subspecies may appear within them, thanks to the richness of their gene pools. For example, there are rabbits that exhibit variations such as white fur, grey fur, longer or shorter ears, and these variations become more pronounced in a given environment, depending on which natural conditions support them most appropriately. But species never turn into other species. There is no natural mechanism that can effect this, that can design new types and develop the new organs, systems and body plans they require. Every species has been created with its own unique structures. And since God has created every one of them with a potential for variety, a wide but finite variation often emerges within each type.

Evolutionist Admissions Concerning Speciation

Apart from amateurs with only a superficial knowledge of the subject, just about all evolutionists are well aware of the real difficulty they face in trying to account for the diversity of species on Earth. In his book *Genetics and the Origin of Species*, Theodosius Dobzhansky, one of the architects of neo-Darwinism, stated that the real problem facing evolutionists was the variety of life.[200]

Theodosius Dobzhansky

> *This is the real issue on which Darwin and his followers must shed light. In The Origin of Species, Darwin offered no concrete evidence, but merely speculated. In one letter, cited by his son Francis Darwin in his book Charles Darwin's Life and Letters,*

The rabbit species displays considerable possible variations within itself, such as white fur, grey fur, long or short ears. However, one type never turns into another.

he admitted this: "When we descend to details, we can prove that no one species has changed."[201]

Darwin hoped that the answers to these questions would later be found and the formation of species proven over the course of time and with further scientific research. On the contrary, scientific discoveries have refuted Darwin every time. Despite all the efforts made by evolutionists over the intervening 150 years, speciation through evolutionary mechanisms has remained devoid of any proof to support it—as shown by honest confessions on the subject by various evolutionists.

Although speciation is the backbone of the theory of evolution, it is also a concept strikingly shrouded in darkness. (More accurately, evolutionists possess no other evidence than the examples of micro-evolution and variation they have distorted.) For example, in a paper published in 1999, the Indiana University biologists Troy Wood and Loren Reiseberg wrote that very little is known about the biological mechanisms that give rise to species formation.[202] As Professor Gareth Nelson of the American Museum of Natural History admits, "The 'species problem" is perennial, and speciation remains as much a black box as ever."[203]

Cornell University's Professor Richard Harrison sets out the latest position in an article published in *Nature* magazine in 2001:

Natural communities harbor an enormous variety of species ... But what of the origin of diversity? Much less has been written about how new species arise—although the process of speciation is central to evolutionary biology.[204]

It is not at all surprising, actually, that so very little has been written, because scientific discoveries have revealed that one species cannot turn into another and that change takes place only within species, and within specific bounds. Not a single example of speciation through evolutionary mechanisms has been observed. In an article published in the 18 January, 2001, edition of *Nature*, the evolutionist biologists Darren Irwin, Staffan Bensch and Trevor Price admit as much: "The evolutionary divergence of a single species into two has never been directly observed in nature."[205]

Professor of Anthropology Jeffrey Schwartz, from Pittsburgh University, emphasizes the same fact in his book, *Sudden Origins: Fossils, Genes, and the Emergence of Species*:

... Nevertheless, it was and still is the case that, with the exception of Dobzhansky's claim about a new species of fruit fly, the formation of a new species, by any mechanism, has never been observed. [206]

Faced with these facts, some evolutionists propose an al-

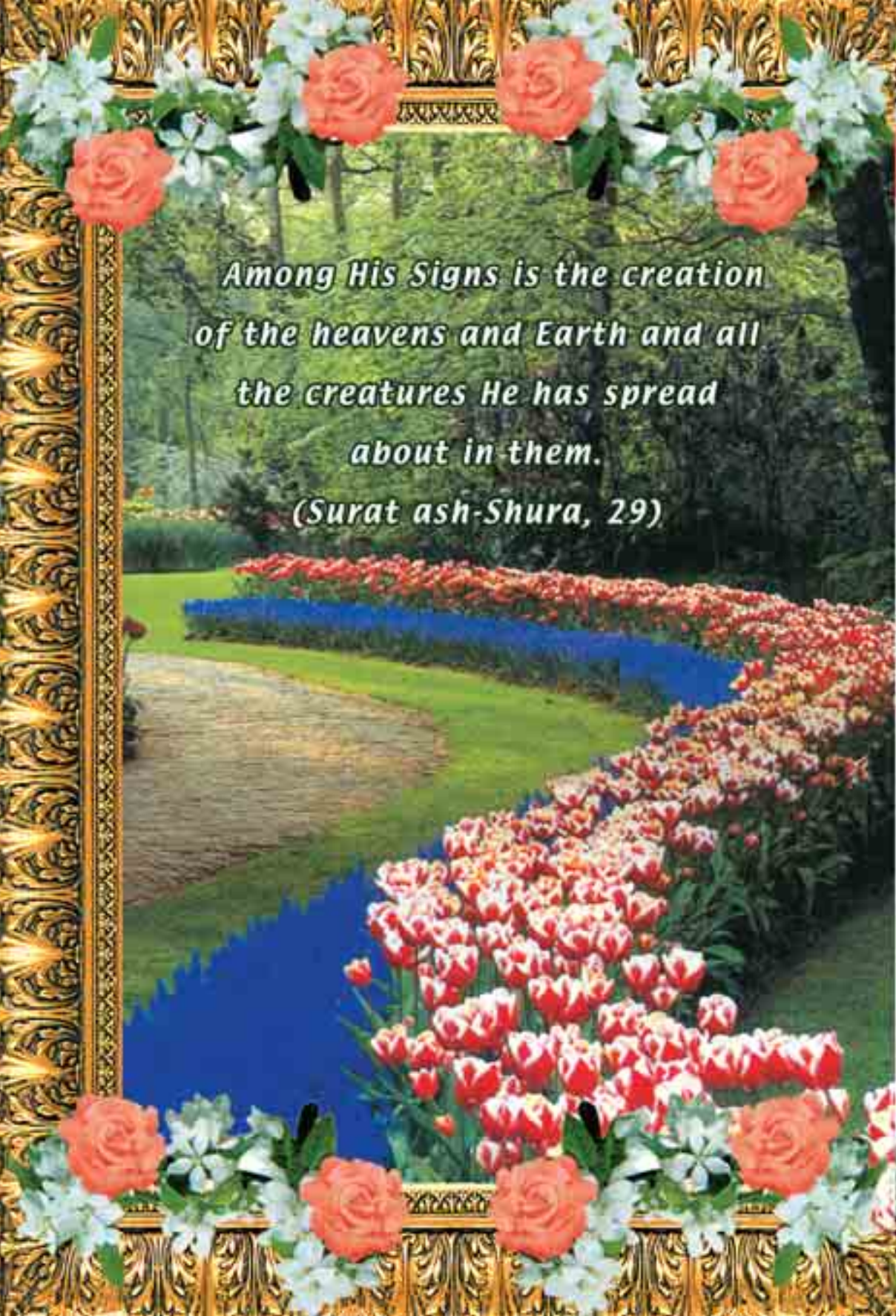
ibi along the lines of "We cannot observe speciation through evolution, because evolutionary mechanisms act over such lengthy periods of time. Therefore, speciation cannot be observed in nature or in the laboratory." This search for consolation has no scientific basis: No case of speciation has ever been seen in creatures such as fruit flies or bacteria, whose life spans are very brief. Thousands of generations of these organisms can therefore be observed by a single scientist in a few years' time.[207] Countless experiments and studies have to date been conducted on various micro-organisms and animal species, and all have demolished evolutionist dreams.

One evolutionist, Kevin Kelly, editor of *Wired* magazine and director of the All Species Foundation, states that

> *Despite a close watch, we have witnessed no new species emerge in the wild in recorded history. Also, most remarkably, we have seen no new animal species emerge in domestic breeding. That includes no new species of fruit flies in hundreds of millions of generations in fruit fly studies, where both soft and harsh pressures have been deliberately applied to the fly populations to induce speciation... In the wild, in breeding, and in artificial life, we see the emergence of variation. But by the absence of greater change, we also clearly see that the limits of variation appear to be narrowly bounded, and often bounded within species.* [208]

Fruit flies have been reared and constantly subjected to mutations for some 70 years, but no speciation has ever been encountered. No evolutionary change has taken place,

Fruit flies have been bred and subjected to mutations for some 70 years. But no evolutionary change has ever taken place. No case of speciation has been encountered, and fruit flies have remained as simply fruit flies.

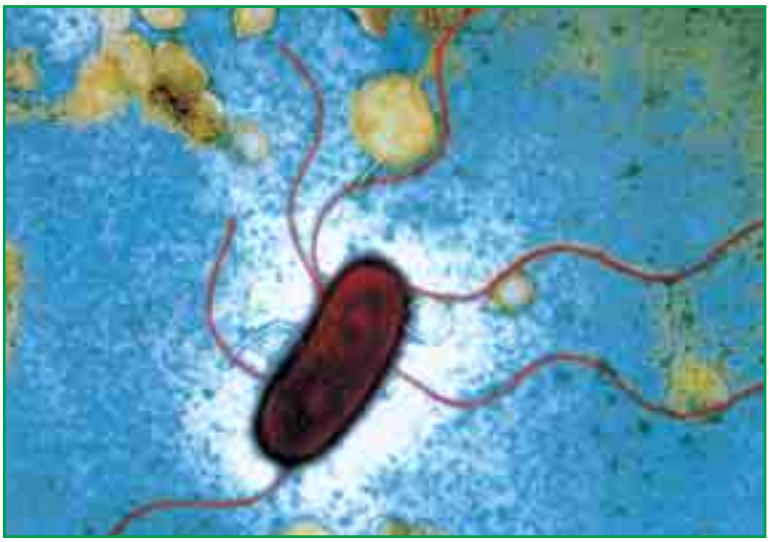

Among His Signs is the creation
of the heavens and Earth and all
the creatures He has spread
about in them.
(Surat ash-Shura, 29)

and fruit flies have always remained fruit flies.[209] Similarly, no new species or multi-celled organism has emerged from the experiments and research conducted for many years on the single-celled bacterium *Escherichia coli*, which has always remained *E coli*.[210]

> *The fossil record itself also definitively rejects the concept of speciation. In the fossil record, there is no trace of the countless intermediate forms that should, according to Darwinism, have once existed.*[211]

The origin of species, the emergence of new species and the diversity of life cannot be explained in terms of natural processes and random factors, as the theory of evolution maintains. Moreover, recent findings show that Darwinism is an unscientific and unrealistic theory, and a great many scientists today are aware of this. However, very few biologists express such views openly, out of a fear of being excluded from the scientific world. One of these is Professor Lynn Margulis of Massachusetts University, whose views on this subject were included in Kevin Kelly's book *Out of Control: The New Biology of Machines:*

> *"It is totally wrong. It's wrong like infectious medicine was wrong before Pasteur. It's wrong like phrenology is wrong. Every major tenet of it is wrong," said the outspoken biologist Lynn Margulis about her latest target: the dogma of*



In all the years of experimentation and research into the bacterium *Escherichia coli*, no other species of bacterium of other multi-celled organism has ever emerged. *E. coli* has always remained *E. coli*.

> *Darwinian evolution. [With her theses], Margulis was ... denouncing the modern framework of the century-old theory of Darwinism, which holds that new species build up from an unbroken line of gradual, independent, random variations. Margulis is not alone in challenging the stronghold of Darwinian theory, but few have been so blunt.* [212]

In "Ecology, Evolution and Behavior," an article in the 11 May, 2000, edition of *Nature* magazine, Professor Tilman neatly sum up the evolutionist dilemma:

The existence of so great a diversity of species on Earth remains a mystery.[213]

In conclusion, evolutionists have no answers regarding the origin and diversity of species. If they wish to find the answer, then they must abandon their belief in Darwinist deceptions and instead accept that it is Omniscient and Almighty God Who created every living species with its rich potential for variation.

Creation is unique to God. No matter how they may strive, those who deny this fact will inevitably be doomed to disappointment:

Humanity! An example has been made, so listen to it carefully. Those whom you call upon besides God are not even able to create a single fly, even if they were to join together to do it. And if a fly steals something from them, they cannot get it back. How feeble are both the seeker and the sought! (Surat-al-Hajj, 73)

CHAPTER 4.

THE TRUE STORY OF THE GALAPAGOS FINCHES

Books about the life of Charles Darwin and the development of his theory always give special importance to the Galapagos Islands in the Pacific Ocean. These islands are even mentioned in some biology textbooks, since the Galapagos were a source of inspiration for Darwin as he drew up his theory. Evolutionists describe these islands as a place

The discovery ship H.M.S. Beagle.

where the foundations of the theory of evolution were laid, and as "Darwin's laboratory." As a result of the 20th century's intense Darwinist propaganda, the Galapagos have acquired great fame .

These small islands lie fairly close to one another, some 1,000 kilometers off the coast of Ecuador, to the west of the South America. They are all volcanic in origin, having emerged from magma thrown up by a volcano several million years ago.

During his five-year voyage on the explorer vessel H.M.S Beagle, Darwin landed on the Galapagos in 1835, and spent several weeks there conducting observations. The diversity

of plant cover and animal life on these islands, so distant from the mainland, made a great impression on Darwin.

The Galapagos Islands are a region containing a very large number of different plant and animal species—various tropical plants as well as finches, flamingos, penguins, giant tortoises, iguanas, seals, butterflies, and insects. Forty-two percent of the plants found on the Galapagos, 75% of the bird species, 91% of the reptiles and all of the mammals are unique to the islands, not found anywhere else in the wild.[214]

The unique Galapagos finches made these islands a landmark of Darwinism. There are 13 species of finches on the Galapagos Islands, and another one on Cocos Island, some 600 kilometers to the northeast. The scientific literature refers to these 14 species as *Galapagos finches* or *Darwin's finches*. The birds finches vary between 7 and 15 centimeters in length, and generally have dark-colored feathers. Being rather tame, they do not fly for very long distances. Although 14 different species have been classified, they bear a close resemblance to one another, exhibiting similar body shapes, colors

and habits. Ornithologists distinguish between them mainly on the basis of beak shape and body size.

These birds' profound influence had on Darwin is described in various accounts:

> *The finches, then, did play a role in the formulation of Darwin's theory and they became an important part of his evidence for the role of natural selection in evolution.*[215]

> *In fact, Charles Darwin looked to 13 different species of finches from the Galapagos Islands to help bolster his theories of evolution.* [216]

Evolutionists ever since Darwin have claimed that the present-day Galapagos finches evolved from a single species that arrived long ago from South America. At every opportunity, they use these birds as an example of evolution through natural selection, and portray them as one of the best-known proofs of evolution. Morever, evolutionists claim that studies on the finches provide an overwhelming evidence for the role of evolutionary process in generating the extensive biodiversity.[217]

Evolutionists refer to how different forms emerge as the result of a single species settling in various environments as *adaptive radiation.* They portray the so-called evolution of finches living on the Galapagos as a classic example of this; and may go even further and claim that the same process

can be observed today.

Professor Ali Demirsoy, who devotes considerable space to the theory of evolution in his books, describes the Galapagos finches as a good example of adaptive radiation:

> *Adaptive radiation can be seen on a small scale in the finches living in the Galapagos Islands . . . Some of these birds are ground-feeders, eating cereals and seeds, others live in the trees, feeding on insects, while others still live in certain cacti, feeding on their seeds. But these birds, which all share the same origin, display a striking level of adaptive radiation in terms of their beak size and shape.*[218]

According to Hau and Wikelski, Darwin's finches are "are a textbook example of adaptive radiation" and "one of the most convincing evidences for 'evolution in action'.[219]

This chapter shall examine Darwin's and his followers' errors regarding these finches, and show how these birds reveal no evidence for the theory of evolution.

First, we can briefly touch on the classification of these birds in the scientific literature.

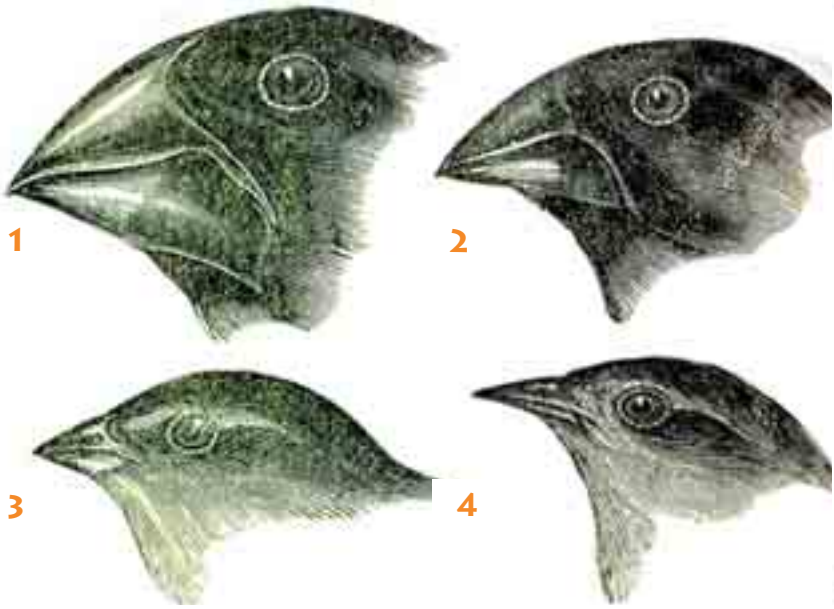
The Classification of the Galapagos Finches

In terms of anatomy, behavior and ecology, the Galapagos finches are divided into 14 species. Because six

of these feed on seeds on the ground, they are known as *ground finches*. These in turn are divided into three types, according to their body and beak size: the great ground finch (*Geospiza magnirostris*), the medium ground finch (G. fortis) and the small ground finch (*G. fuliginosa*). The other ground finch types include the great cactus-eating ground finch (*G. conirostris*), which has a longer beak and eats cactus flowers and fruit pulp in addition to seeds, the small cactus ground finch (*G. scandens*), and the sharp-beaked ground finch (*G. difficilis*), which eats the eggs of other animals and feeds on blood, as well as seeds.

Six of the Galapagos species are tree finches. Apart from the vegetarian finch (*Platyspiza crassirostris*), these all feed on insects. The woodpecker finch (*Cactospiza pallida*) holds a cactus thorn in its beak to extract insects from their hiding places. The mangrove finch (*C. heliobates*) uses its thick, flat beak to catch insects in the swamps. The other three tree-dwellers are the greater tree finch (*Camarhyncus psittacula*), the medium tree finch (*C. pauper*) and the small tree finch (*C. parvulus*). The vegetarian finch eats leaves, seeds, fruits and flowers with its short, slightly curved beak.

The warbler finch (*Certhidea olivacea*) has a small, thin beak and hunts insects. The Cocos Island finch (*Pinaroloxias inornata*) is the only species living outside



1. ***Geospiza magninostris***
2. ***Geospiza fortis***
3. ***Geospiza parvula***
4. ***Certhidea olivecea***

the Galapagos Islands, and feeds mainly on insects in trees and on the ground.

Every species of finch is equipped with a beak structure responding to its food requirements. The beaks of the Galapagos finches may be compared to pincers and files, each specially designed for different purposes.

The Emergence of the "Darwin's Finches" Myth

In fact, it's rather surprising that finches living on the Galapagos Islands should have been given Darwin's name, because he was not the first one to discover them. Actually, they had been known for a long time before. Captain James Colnett, for example, had referred to them back in 1798.[220] Furthermore, contrary to what most people imagine, while Darwin was on the Galapagos Islands, his observation of the finches was rather superficial. His travel notes contain only one reference to the finches, and that he never mentions them at all in *The Origins of Species*.[221]

In fact, Darwin attached importance to the finches only long after his voyage. While he was actually on the Islands, he did not find them worthy of much interest, collecting specimens of only nine of the 13 species. And he described only six of these as finches, describing the others as other species of bird. In short, he was unable to fully distinguish the finch species, and also failed to establish a connection between beak shape and feeding habits. He did not even note which bird species was particular to which island. As stated by Michaela Hau and Martin Wikelski of University of Illinois "Due to this oversight during his visit of the Galapagos archipelago, Darwin did not recognize the po-

tential importance of the finches for the theory he developed later.[222]

The well-known British ornithologist John Gould studied in detail the finch specimens Darwin had collected in 1837, and concluded that these birds were unique to the Galapagos and that most of Darwin's records were wrong. Examination of the finches caught by the Beagle's crew and the regular records they kept brought Darwin's errors to light.[223]

Frank Sulloway, a historian of science, stated that with regard to these birds' feeding habits and geographical distribution, Darwin's thinking was limited and, to a large extent, incorrect.[224] About the claim that Darwin took the Galapagos finches as evidence for evolution, Sulloway said. "Nothing could be further from the truth"[225]

In short, following long years of traveling, Darwin concluded that the finches could represent an example of evolution—but in so doing, he based himself of deficient and mistaken data. Actually, it was in fact not Darwin who mythologized the Galapagos finches, but 20th century evolutionists. The term *Darwin's finches* was first used by Percy Lowe in 1936, and the ornithologist David Lack spread the use of the term. Lack's 1947 book *Darwin's Finches* was a standard-bearer for evolutionary propaganda in this area.[226] With his support for neo-Darwinism's claims, he made the

tale of Darwin's finches known to everyone; their so-called evolution has since been studied more than the other bird families.[227]

Research After Darwin

As early as the late 19th century, a flood of visitors began arriving at the Galapagos Islands. The visitors and researchers, most of them American, collected thousands of bird specimens. For example, the California Academy of Sciences alone added more than 8,000 birds (including Darwin's finches), to its collection in 1905-1906.[228] Galapagos finches soon found their way into many museum collections—not without an objective, of course. The aim was to complete the work that Darwin had left half-finished and to rescue evolution from its predicament by finding valid evidence.

There was another important reason for the last century's evolutionary research into the Galapagos finches. In *The Origin of Species*, Darwin had written that a new species' emergence by way of natural selection was a very slow process, for which reason it could not be observed, but only deduced. This was not acceptable by the standards of developing science. Neo-Darwinists embarked on a search for

new evidence on which to maintain their claims that evolution was scientific. At this point, the story of the Galapagos finches came to be regarded as saviors.

These birds became the focus of wide-ranging studies. Many evolutionists issued statements based on their observations. In an article in the April 1953 *Scientific American*, David Lack claimed that the evolution of the birds on the Galapagos Islands had taken place recently, for which reason the islands were an exceptional place.[229] Another evolutionist, Peter Grant, even maintained that the Galapagos finches were still evolving.[230]

One can see the names of Peter and Rosemary Grant in most articles and papers about these finches. These two researchers first went to the Galapagos Islands in 1973 with the aim of seeing the effect of evolution on the finches, and have carried out detailed observations and studies ever since. They are thus considered experts on Darwin's finches.[231]

Peter Grant and His Wife on the Galapagos

These two, who are currently continuing their research at Princeton University's department of Ecology and Evolutionary Biology, spent many years on Daphne Major, one of the tiny Galapagos Islands, studying the middle

ground finch. They recorded the measurements of the beaks, wings and bodies of the birds they caught with the help of nets, and after attaching a special band to each one they set them free again. By 1977 they had marked the majority of the birds on the island, and almost all of them by 1980.

In this way they regularly monitored some 20,000 finches from generation to generation. The absence of human beings and predators on this island made the finches so tame as to be effectively domesticated. This made their work very much easier. In addition, Professor Grant and his wife regularly measured the amount of rain falling on the island.

Most research regarding Galapagos finches was carried out in the birds' natural habitat. Peter and Rosemary Grant and their assistants observed the birds under various climatic conditions and sought to identify the effects that alleged evolution had on them. Note that all the researchers involved in these studies believed that all living things are the result of evolution and had set to confirm, through their observations, this belief to which they were so devoted.

As for the climatic conditions on the Galapagos, there is usually a hot and rainy season between January and May, with the other months being cooler and drier. In addition, there may be wide variations between the initial and total

amounts of rainfall in the hot, rainy season. Moreover, the atmospheric phenomenon known as El Niño takes place at irregular intervals every two and 11 years, and at different levels of intensity, also alters the climatic balances. At such times there is excessive rainfall; subsequent years are then generally dry and arid.

The level of rainfall is of vital importance to the ground finches that feed on seeds. In years of plentiful rain, ground finches can easily obtain the seeds they need to grow and breed. In years of drought, however, the plants on the islands may produce a limited and inadequate amount of seeds, as a result of which some finches starve.

Grant and his colleagues measured the rainfall on Daphne Major as normal in 1976, but counted only one-fifth of this amount a year later, in 1977. During the 18 months of drought from the middle of 1976 to January 1978, there was a significant drop in the quantity of seeds on the island and a major reduction in the numbers of ground finches. The population fell to 15% of the year before. They assumed that most of the other birds had died, and that a few had migrated.

Grant and his team made another important observation, noting that the finches that survived the drought were rather larger than normal and had slightly wider beaks. The average beak of the ground finches on the island in 1977 was

approximately half a millimeter deep, 5% greater than the average in 1976. (Beak depth is the distance between the topmost and lowest points where the beak joins the head.) Starting from this point, the researchers claimed that natural selection had separated out those finches feeding on seeds alone, and that those birds with beaks large enough to open large, hard seeds had managed to survive.

In an article in the October 1991 *Scientific American*, Peter Grant announced that this research offered direct evidence of evolution. According to him, 20 cases of selection were sufficient to turn a middle ground finch into a great

In fact, Peter Grant and his wife put a lot of hard work into their research on the Galapagos Islands. Yet when evaluated, all their care and attention bore no fruit. They committed a serious error by interpreting their findings according to evolutionist preconceptions, rather than scientific evidence.

ground finch. Assuming that drought occurred once every 10 years, this change could take place in as little as 200 years. Adding in a margin of error, Grant maintained that this transition could also last as long as 2,000 years—but that bearing in mind the length of time the birds had existed on the island, even this figure was very low. He suggested that natural selection would take longer to transform a middle ground finch into a cactus ground finch.[232]

Grant reiterated these claims in subsequent articles, insistently maintaining that the finches had confirmed Darwinism and was proof that natural selection, via environmental pressure, caused organisms to evolve.[233]

Evolutionist circles regarded these statements as a lifesaver. They were portrayed as evidence of evolution through natural selection, a process that had hitherto always been refuted by experiment and observation. The Grants' researches were made the subject of Jonathan Weiner's Pulitzer prize-winning book *The Beak of the Finch*. In that 1994 book, Weiner described this change in the beak as "the best and the most detailed demonstration to date of the power of Darwin's process."[234] Again according to Weiner, the finch beak was an *icon* of evolution.[235] With his book's publication, Peter and Rosemary Grant became heroes of Darwinism.

Indeed, Professor Grant and his team put in a lot of hard

work and field research on the Galapagos, but failed to display the same care and attention in analyzing their results. They fell into a grave error because they set about evaluating their findings, not according to objective scientific logic, but in the light of their evolutionist preconceptions.

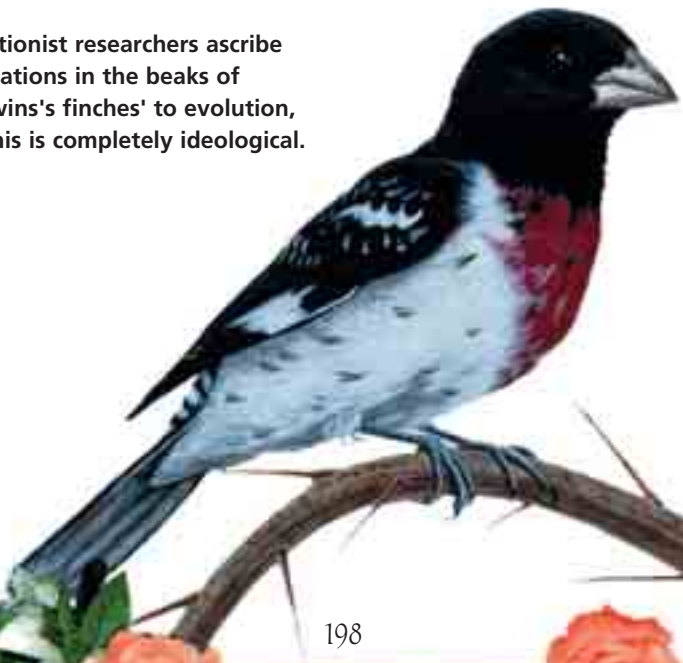
The Beak-Change Error

Every few years, as already mentioned, El Niño affects the western regions of North and South America in particular, and at such times, high levels of rain fall on the Galapagos, leading to increased plant growth and an abundance of seeds. Ground finches are therefore easily able to find the food they need, and their numbers accordingly increase after such rainy periods.

Grant and his colleagues witnessed a similar situation in 1982-83. With the rains, seeds became plentiful, and the average beak size of ground finches returned to the pre-1977 drought levels. This greatly surprised the observers, who were expecting a continuing "evolution" in beak size.

The change in Galapagos finches' average beak size actually has a different explanation: In years of drought when seeds are scarce, birds with beak a slightly larger than normal can open the remaining hard, large seeds with their

more powerful beaks. Weaker individuals in the finch population, with smaller beaks, die off since they are unable to adapt to the prevailing conditions. And thus, the average beak size increases. In rainy periods, on the other hand, when there is an abundance of small, soft seeds, the process works in the opposite direction: Ground finches with smaller beaks can better adapt to their environment, and their numbers increase. Thus the average beak size returns to normal. In fact, Peter Grant and his student Lisle Gibbs admitted as much in an article published in *Nature* magazine in 1987.[236]



Evolutionist researchers ascribe fluctuations in the beaks of "Darwins's finches' to evolution, but this is completely ideological.

In short, facts clearly reveal no such thing as evolutionary change. Average beak size may fluctuate according to the rainfall, sometimes increasing or decreasing around a fixed level, but there is no question of a net change.

Aware of this, Peter Grant said that, "the population, subjected to natural selection, is oscillating back and forth."[237] Some evolutionist researchers say that natural selection works in two mutually opposed directions.[238]

No matter how much a clock pendulum may swing back and forth, it never records any net progress. That will still apply if you operate a pendulum perfectly for millions of years.

Danny Faulkner, a professor of Astronomy and Physics at South Carolina University, states that the finch beaks' fluctuations cannot represent evidence of evolution: "And so if you have supposed microevolution one direction and then later it reverts right back to where it started from, that's not evolution, it can't be."[239]

The average size of the Galapagos finches' beaks increases or decreases according to food resources, but the way that evolutionist researchers imagine they have found evidence for evolution in fluctuations in the finches' beak is completely ideologically based.

The Finch "Evolution" Deception

To recapitulate, following their examination of thousands of ground finches (*Geospiza fortis*) from the 1970s to the 1990s, Grant and his team observed no net increase or decrease in beak size. Moreover, no new species or characteristic emerged, and they observed no net change in any direction.

An objective scientist's task is to report that fact without speculation or distortion. It is unacceptable to exaggerate a phenomenon or to distort its true significance for the sake of producing evidence for any theory. Yet Professor Grant's analysis was completely opposed to his findings; he made a claim of a phenomenon that he never observed, that one finch species could turn into another in as short a time frame as 200 years, and he thus cast a serious pall over his own research. In the words of the California University biologist Dr Jonathan Wells, this is "exaggerating the evidence."[240]

Wells states that Darwinists frequently resort to such methods, and cites as an example some expressions in a pamphlet issued by the American National Academy of Sciences:

A 1999 booklet published by the National Academy de-

scribes Darwin's finches as "a particularly compelling example" of the origin of species. The booklet goes on to explain how the Grants and their colleagues showed "that a single year of drought on the islands can drive evolutionary changes in the finches," and that "if droughts occur about once every 10 years on the islands, a new species of finch might arise in only about 200 years."

That's it. Rather than confuse the reader by mentioning that selection was reversed after the drought, producing no long-term evolutionary change, the booklet simply omits this awkward fact. Like a stock promoter who claims a stock might double in value in twenty years because it increased 5 percent in 1998, but doesn't mention that it decreased 5 percent in 1999, the booklet misleads the public by concealing a crucial part of the evidence. [241]

It is astonishing that the respected and trustworthy American National Academy of Sciences should employ such a deception to look for evidence for natural selection and evolution in finches' beaks. Berkeley University's Professor Phillip Johnson said so in an article in the *Wall Street Journal:* "When our leading scientists have to resort to the sort of distortion that would land a stock promoter in jail, you know they are in trouble."[242]

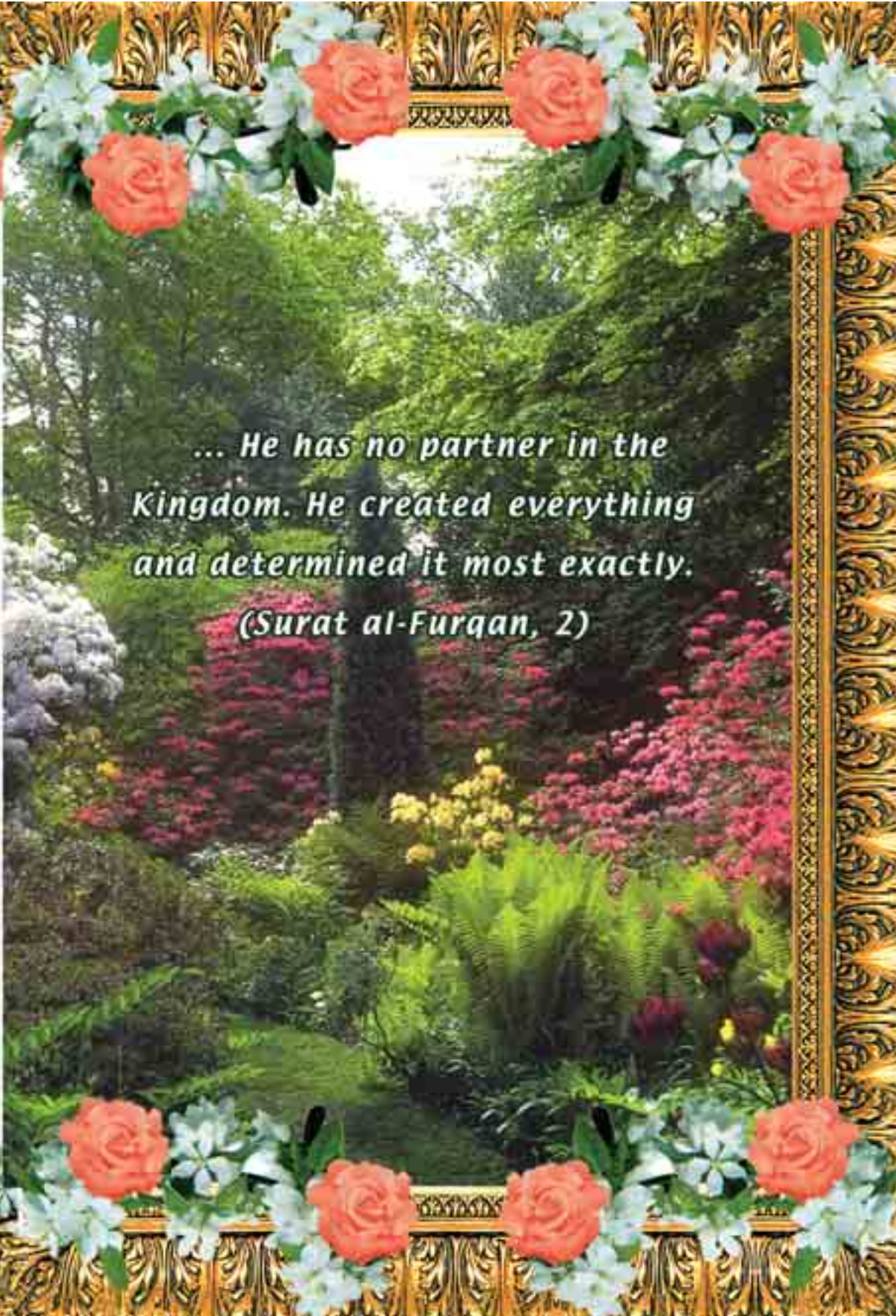
In sum, the story of the Galapagos finches, claimed to

represent one of the most impressive examples of evolution through natural selection, is a clear deception—but only one of hundreds of similar examples of evolutionists resorting to unscientific methods.

The Speciation Error

It has long been known that it is difficult to distinguish between Galapagos finches because of their similarity. Ornithologists have often written that doing so requires considerable expertise.[243] Therefore, the classification of these finches into 14 separate species is the subject of controversy among ornithologists.

To recapitulate, a species is defined as a population consisting of individuals with similar structural and functional characteristics, able to mate only with one another in nature, and which are unable to mate successfully with other individuals outside their own population. According to this definition, it is incorrect to divide Darwin's finches into 14 distinct species, because a significant proportion of them have been observed to interbreed. Indeed, Professor Grant admitted that six separate species could be recognized instead of 14, and in later studies he admitted that this figure could be lowered still further.[244]


... He has no partner in the
Kingdom. He created everything
and determined it most exactly.
(Surat al-Furqaan, 2)

Genetic investigation of the Galapagos finches has shown that there is no genetic difference among them.[245] For example, a joint study by researchers from the Max Planck Institute and Princeton University in 1999 announced that the traditional classification of Galapagos finches was not apparent at the molecular level.[246] Hau and Wikelski express the same: "There is no evidence for an absolute genetic barrier between Darwin's finch species, thus many species can potentially hybridize.[247]

In conclusion, the Galapagos finches are all subspecies of a single species. What Darwin saw on and imagined to be evolution was actually *variation*. Finches with the different appearances in question are in reality variations within a single species. There is no question of any new species emerging.

There is a good reason for evolutionists' insistence on the finches; because finches are one of the groups exhibiting the greatest variation among bird families.[248] As a result, they have been widely used in attempts to employ variation as evidence for evolution.

To see how the situation on the Galapagos Islands is a typical case of variation, we can look at another example: In 1967, 100 finches all belonging to the same species were captured on the Island of Laysan in the Pacific Ocean and transported to Southeast Island, some 500 kilometers dis-

tant. Observations carried out 20 years later in the 1980s showed that the birds' beak structures were different from how they'd been initially.[249] This study is just one example showing broad diversity in finches as a whole. Dr. Lee Spetner, the Israeli physicist and author of the book *Not by Chance!*, states that what can be observed here is not evolution, but the potential for variation that already existed in those first 100 birds transported to the island.[250]

As described earlier, variation is no evidence of evolution, because it consists only of the emergence of various different combinations of existing genetic information and adds no new characteristics. The natural selection of variations belonging to a species is the phenomenon that evolutionist biologists refer to as micro-evolution. Since this cannot bring about a species change or produce new genetic information, it provides no evidence for the theory of evolution.

New variations might appear if different combinations of Galapagos finches mated for millions of years or were subjected to different climatic environments. But no matter what happened, they would still remain finches.

In short, absolutely nothing about the variations in the Galapagos finches, regarded as "proof of evolution" by Darwin and his followers, constitutes evidence for the theory of evolution. There are insuperable genetic barriers be-

The different beaks on the Galapagos Islands finches are an example of variation and represent no evidence for the evolution of species.

tween species, and small fluctuations in finches' beaks are no evidence that these barriers can be overcome. Instead of placing their hopes in tales about the Galapagos finches, evolutionists must answer the question of how brand-new genetic information to create a new species comes into being originally. Darwinism has no rational and scientific answers to give, and the proponents of the theory of evolution are well aware of this.

The Implications of the Galapagos Islands

Louis Agassiz. the well-known Harvard University zoologist, visited the Galapagos in 1872 and stated that he saw no fight for survival among the living things there, but that they lived lives administered by a beneficent Creator.[251] Indeed, the tame animals on the Galapagos Islands refute Darwinists, who claim that nature consists of a struggle for survival. Professor Agassiz, one of the most famous biologists of his time, has explained the invalidity of evolution and defended the idea that Creation was the origin of life.[252]

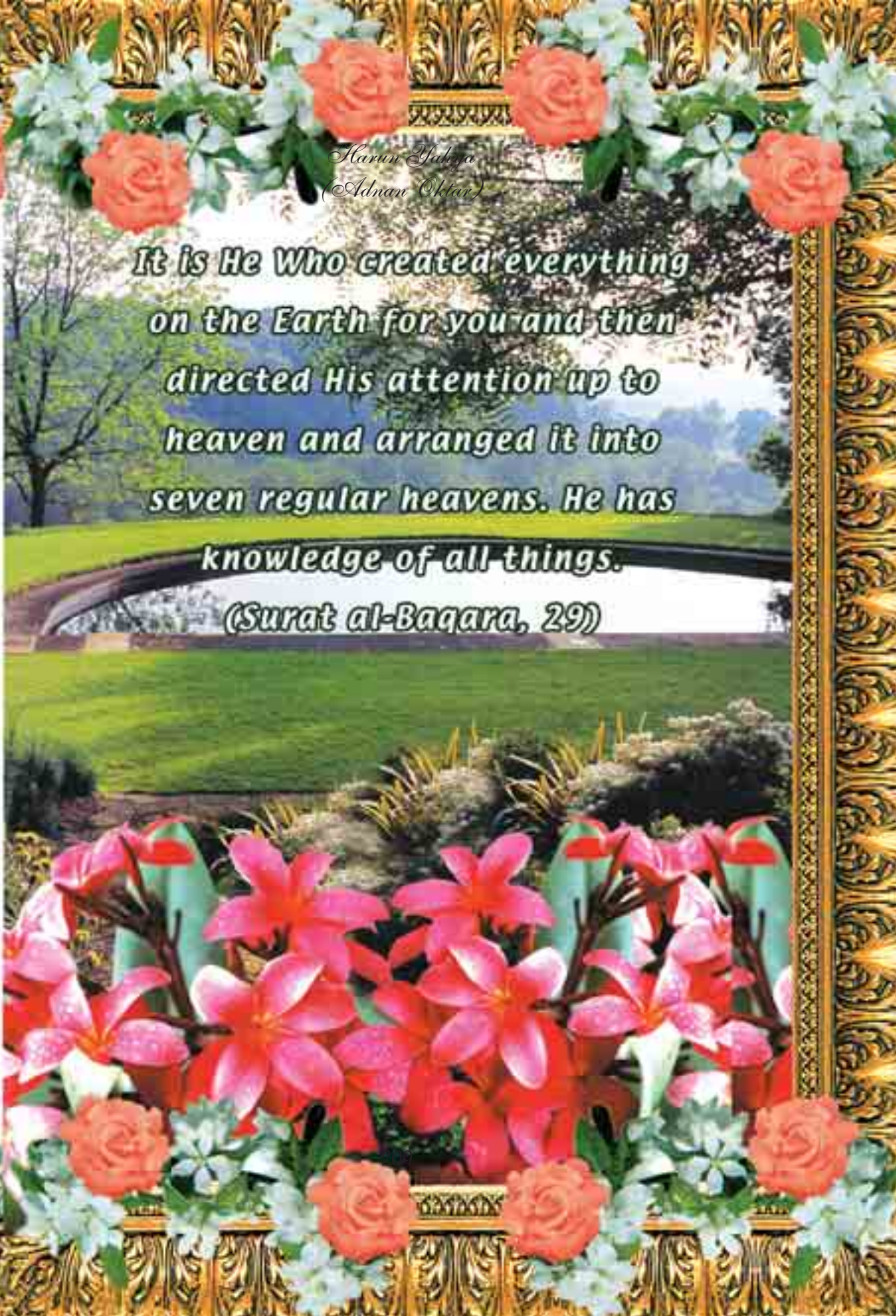
Anyone who sets aside prejudices and preconceptions in looking at the Galapagos will immediately agree with Agassiz's observations. These small areas of land in the middle of the ocean, a thousand kilometers from the mainland, contain plants and animals of a richness, variety and beauty not to be seen anywhere else on Earth: verdant tropical plants and trees, brightly colored, dazzling birds, a whole range of living things, with flawless designs and matchless beauty ... Anyone with normal understanding will be amazed at these species' vivacity and variety, and will conclude that a magnificent Creation is on display. That is the natural conclusion; what one might expect. The surprising thing, however, is how Darwin and his followers saw all this

and yet made such an irrational and unscientific inference as evolution. (In fact, there is no need to travel to the Galapagos Islands or to watch nature documentaries about them in order to witness the proofs of Creation that exist in the entire universe. Anyone can see countless proofs of the might, intelligence and knowledge of God everywhere, from his own body to the skies, simply by raising his head.)

Let us have a closer look at the Galapagos finches. Their wing geometry has been designed in a manner appropriate to short flights, leaps and maneuvering in dense vegetation. Whole volumes could be written about their beak structures, flight techniques, special skeletal, respiratory, digestive and other systems, the complex and aerodynamic structure of their feathers, their nest-building techniques, sense organs, methods of hunting and feeding, forms of behavior, and the sounds and melodies they produce during reproductive and social activities.

These characteristics of Galapagos finches are all marvels of design. There are countless proofs and miraculous properties in a single cell of these birds, or even in a single protein molecule.

It is sure and certain that God has created all living things, together with their flawless characteristics. The Galapagos finches are one of the countless proofs of this. Darwinists must realize that they are only deceiving themselves with their tall tales regarding the Galapagos finches.


Harun Yahya
(Adnan Oktar)
It is He Who created everything on the Earth for you and then directed His attention up to heaven and arranged it into seven regular heavens. He has knowledge of all things.
(Surat al-Baqara, 29)

CHAPTER 5.

THE "INDUSTRIAL-REVOLUTION MOTH" ERROR

As you know, natural selection is one of the two mechanisms that represent the foundation of Darwinism and are suggested to bring about evolution. One of the most important alleged proofs of natural selection's evolutionary power is, besides the myth of the Galapagos finches, have just been looking at, the darkening of the color of *Biston betularia* moths in Great Britain during the Industrial Revolution.[253] This example, regarded as prime evidence of evolution, appears in just about every biology textbook and evolutionist resource, and is usually the first scenario that comes to mind when the theory of evolution is mentioned.

The British entomologist Bernard Kettlewell, renowned for his research into these Industrial-Revolution moths, describes them as "the most striking evolutionary change ever actually witnessed in any organism."[254] Philip MacDonald Sheppard, a British geneticist, states that the Industrial-

Revolution moths embody the "most spectacular evolutionary change ever witnessed and recorded by man."[255] Sewall Wright, the recognized authority on population genetics, adds that it is "the clearest case in which a conspicuous evolutionary process has been actually observed."[256]

Professor Ali Demirsoy, one of Turkey's leading proponents of the theory of evolution, maintains that this is a most striking example of natural selection.[257] Professor Demirsoy, who has described these Industrial Revolution moths in many of his books, describes their case as follows:

> *The most interesting example on this subject is the evolutionary change that took place in a moth species (Biston betularia) living in a region in England in which there was once dense factory smoke. These moths were white immediately before the Industrial Revolution (as far as we can tell from collections from the period) and lived on white lichens on the trunks of trees. This prevented them from being seen by predators. With the Industrial Revolution, these lichens darkened due to the soot emitted from factory chimneys, and light-colored moths became far more visible. Predators that fed on them, especially birds, were able to catch them much more easily. However, the very small number of dark-colored individuals in the population prior to the Industrial Revolution acquired a great advantage due to this color change. Much of the pop-*

ulation soon came to consist of dark-colored moths." [258]

First, let's consider the evolutionist claims regarding a classical instance of natural selection and perhaps the best-known story of evolutionary biology.[259]

The Story Emerges

The Industrial Revolution, which began in the 18th-19th centuries in Great Britain, was a major turning point in the history of mankind. With the building of factories and growth in industrial plants, the hitherto unknown problem of air pollution emerged. Heavy pollution afflicted such main industrial centers as Manchester, Liverpool and Birmingham. At the same time, color changes were recorded in various plants and animals around these cities.

A change in color was striking in the moth species *Biston betularia*, a member of the family *Geometridae* (engineer moths) of the class *Lepidoptera* (butterflies and moths). Prior to the Industrial Revolution, this species generally consisted of light-grey individuals with darker spots. (For that reason, they are known as "peppered moths.") In the 1850s, dark-colored individuals were in the minority. According to some researchers, the first dark form was

With the building of factories and increase in the number of industrial plants in 18th and 19th -century Britain, air pollution—which was previously unknown, emerged. At the same time, differences were recorded in the colors of certain plants and animals living around industrializing cities.

caught in 1811 and according to others, in 1848, in Manchester.[260]

Light-colored members of this species are known as *typic*, and dark- colored individuals as *melanic*. In subsequent years, observations revealed that dark-colored individuals now constituted the majority of the population—so much so that by the 1950s, 90% of the moths in the region were melanic, or dark. (This situation was revered when air pollution was reduced as a result of legislation mandating stricter emission controls. Light-colored moths again began

to represent the majority, as they had before the Industrial Revolution.)

The phenomenon of a population composed of light-colored individuals gradually assuming a dark color is known as industrial *melanism*. Some 100 examples of this, mainly of nocturnal moths, have been reported in the scientific literature.[261] The protein melanin leads moths to assume a darker shade: Therefore, a darker moth produces more melanin than a lighter- colored one.[262]

But clearly, the 19th century statistics regarding melanism in moths are deficient and flawed, when compared to modern scientific standards. One of the two scientists who spent years researching this subject, Bruce Grant from William and Mary University, express this fact: "During the last century and the early part of this one few people kept records about morph frequencies, so our picture of the rise and spread of melanism is sketchy."[263]

The British biologist James William Tutt first examined this color change in his book *British Moths*.[264] According to Tutt, typic butterflies on light-colored lichens in unpolluted forest areas were less visible; therefore, they were spared being hunted by birds. (Lichens are a symbiotic plant community consisting of algae and fungi.) In the wake of the Industrial Revolution, lichens died out because of pollution caused by soot and acid rain and revealed darkened tree

No new living species can emerge by way of natural selection. The Industrial Revolution moths are an excellent example of this. Until the last quarter of the 20th century, tree trunks grew darker in color with the pollution of Industrial Revolution. Therefore, the light-colored moths alighting on these trees became more visible to predators, and since they were more easily caught, their numbers declined. The numbers of dark moths, however, increased.
But this, of course, is not evolution. No new species was formed, and all that happened was a shift in ratios of variation within an existing species.

trunks. In this way, melanic forms came to appear better camouflaged. Tutt maintained that moth-eating birds were able to hunt light-colored moths more easily as they were more visible, so that the number of melanic individuals in-

creased. To put it another way, he attempted to account for the phenomenon in question through evolution caused by natural selection stemming from environmental conditions—in this case, birds.

J.W. Tutt's claim may appear reasonable at first sight, but it received little acceptance at the time. There was no evidence that these moths—which flew by night and rested on trees by day—were actually hunted by birds. This led to entomologists and ornithologists looking askance at his theory.[265]

Then in the 1920s, the British biologist J. W. Heslop Harrison developed a different theory: that melanism in animals stemmed directly from chemical substances in the air. Harrison reported that melanism could be produced in several other moth species if their larvae were fed on leaves contaminated with metallic salts.[266] Harrison's claim was evaluated as a challenge to Darwinism.[267] However, with the birth of neo-Darwinism in the 1940s, it lost esteem and the idea gained ground that melanism in moths was the result of natural selection..

The British entomologist Bernard Kettlewell, of Oxford University, was a researcher whose name became equated with the Industrial-Revolution moths after his research on the subject in the 1950s. Kettlewell carried out a number of experiments and field studies that placed the subject firmly on the scientific agenda. As one might expect, he was an

evolutionist, and set out with the aim of finding evidence to support the theory.

Professor Kettlewell performed his first experiment in an aviary. He observed that peppered moths he released into the aviary first alighted, and were then hunted by the birds. This way, he determined that the birds caught and ate moths when they were at rest.[268]

In his second experiment, he marked dark and light colored moths and released them during the daytime in a forested area affected by air pollution. He determined that the moths settled on tree trunks and that birds could more easily catch the more visible moths. That night, he released a number of moths he had captured in a trap; of 447 melanics released, he recaptured 123; while of 137 released typicals, he recaptured only 18. Statistically, he recaptured 27.5% of the melanics, but only 13% of the typicals. Kettlewell concluded that "birds act as selective agents, as postulated by evolutionary theory."[269]

He also performed the same experiment in a forest unaffected by air pollution. He was accompanied by Niko Tinbergen, known for his work in the field of animal behavior, and together they filmed the birds hunting moths in the trees. This time, the dark- colored melanic moths were more easily visible on trees covered in light lichens. He en-

countered the exact opposite results to those in the forest area with high pollution, recapturing 12.5% of the typicals compared to 6.3% of the melanics.[270]

Kettlewell thought these statistics were adequate to confirm the thesis, and announced the results of his research with enormous excitement.

Evolutionist circles lost no time in backing Kettlewell's research. *Scientific American* magazine broadcasted the study in an article titled "Darwin's Missing Evidence."[271] Such was the importance ascribed to the subject that it soon became one of the fundamental examples in evolutionist literature.

The Industrial-Revolution moths are still touted as the No. 1 piece of evidence for Darwinism, despite the passage of the intervening half century. Several evolutionists after Kettlewell repeated the experiment (for example, Clarke and Sheppard in 1966,[272]; Bishop in 1972,[273] Lees and Creed in 1975,[274] Bishop and Cook in 1975,[275] Steward in 1977,[276] and Murray and his team in 1980[277]),

However, this whole tale is invalid. Together with the errors of the research results mentioned above, the Industrial Revolution moths gained nothing at all for the theory of evolution.

Subsequent Studies Do Not Confirm Kettlewell's Thesis

Professor Kettlewell's studies were carried out in the regions of Birmingham and Dorset. In later years, various scientists performed similar studies in other areas. Their results astonished researchers, because the expected data failed to materialize. For example, they expected all the light-colored moths to be eliminated around Manchester, an area exposed to very heavy air pollution. Yet that is not what they found.[278] This indicated that there were other factors leading to melanism in moths, beyond Kettlewell's thesis.

Investigations in other regions also failed to match Kettlewell's statements. The Liverpool University biologist Jim Bishop realized that there were more melanics than expected in unpolluted, rural areas of Wales, and concluded that as yet unknown factors were involved.[279] Two researchers who had worked alongside Kettlewell, David Lees and Robert Creed, revealed a darker- moth level of 80% in rural parts of eastern England with very little air pollution. These two scientists stated that Kettlewell's studies were not all that reliable:

> *We conclude therefore that either the predation experiments and tests of conspicuousness to humans are misleading, or some factors or factors in addition to selective*

predation are responsible for maintaining the high melanic frequencies.[280]

The zoologist R. C. Steward, who had studied melanism in moths, determined that although melanic moths were well camouflaged in South Wales, they constituted only 20% of the population.[281] Steward collected data from 165 separate areas of Britain, concluding that north of 52 degrees latitude, sulfur dioxide (a chemical cause of air pollution), was directly linked to melanism; but that south of 52 degrees latitude, other factors apart from air pollution might be having an effect. He described Kettlewell's error by saying, "it may not be possible to generalize from the results for one area, to explain geographic variation over the rest of Britain."[282]

As more research was carried out, data opposing Kettlewell's theory accumulated. The idea that birds led to natural selection by hunting moths proved to be a false as-

Intense research in Britain and America has shown that the distribution of melanic (dark) moths in polluted and unpolluted regions is quite different from what was expected—and predicted. It thus became clear that Kettlewell's research did not reflect the true facts.

sumption. In the words of R. J. Berry, one of Kettlewell's colleagues, "It is clear that melanic peppered moth frequencies are determined by much more than differential visual predation by birds."[283]

Finally, in 1988, Professor Bruce Grant and his colleagues announced the results of their own research aimed at establishing the true cause of melanism in moths, according to which, the declines in melanism "correlated primarily with reductions in atmospheric sulfur dioxide."[284]

In short, research over the last 20 to 30 years has not confirmed Kettlewell's thesis at all. Moreover, it has become increasingly apparent that there were many errors—and deceptions—in his account.

The Erroneous Idea that Lichens Play a Role in Melanism

As will be remembered, Kettlewell claimed that lichens growing darker or dying is an important part of the natural selection process. But exactly how true was this?

Research in the last quarter of the 20th century revealed that his prediction did not reflect the truth at all. With their observations in 104 separate points in Britain, David Lees and his colleagues revealed that there was no correlation between melanism and tree lichens; which they comment-

ed as being surprising.[285] This was confirmed by other studies carried out by American biologists in the same period.[286] Furthermore, Kettlewell had accepted that there was a drop in melanism in moths, before lichens returned with the elimination of air pollution in the 1970s.[287]

Had Kettlewell's and evolutionists' claims been true, lichens would resumed their place on trees as air pollution was eradicated, after which light-colored moths would again come to constitute the majority. First, in other words, it was essential for moths to have places to rest on and hide in. However, it was definitively demonstrated that this was not the case. For example, Professor Bruce Grant and his colleagues showed that the ratio of light-colored moths exceeded 93% in a region with a very sparse lichen covering.[288] They made an important comment: "We suggest that the role of lichens has been inappropriately emphasized in chronicles about the evolution of melanism in peppered moths."[289]

Theodore Sargent from Massachusetts University and his team stated that the level of melanic moths had recently dropped in North America, and that this was perplexing in the light of the classical scenario.[290]

In short, the presence or absence of lichens has no effect on moths. Kettlewell's thinking that lichens were a part of the supposed evolutionary process was a product of another error, as you'll soon see.

Industrial-Revolution Moths' True Resting Place

The species *Biston betularia* used in researches has a feature of close interest to our subject matter here. These moths are nocturnal; they are active during the night hours and rest during the day, returning to their resting places before sunrise—before they can be hunted down by birds—and remain there, motionless, for the rest of the day.

In Kettlewell's experiments, the moths were released in the morning—that is, in daylight—and were observed throughout the day. At night they were recaptured, so that the research was carried out at times incompatible with the moths' lifestyle. Kettlewell was actually aware of this, but maintained that this would not affect the results of his experiment.[291]

In fact, however, Kettlewell's assumption was too great an error to be overlooked. Daylight caused the moths to become confused and lose their way, and thus to land on trees that would make them easy prey for birds. And in fact, the species *B. betularia* actually does not spend its days resting on tree trunks at all. The idea that these insects do is an error going back some 20 years.

In the early 1980s, research by Kauri Mikkola from Helsinki University into caged *Biston betularia* moths first

revealed this. Mikkola, a zoologist, observed that the moths rarely landed on tree trunks and normally rested beneath thin, more or less horizontal branches.[292] Nocturnal moths released under a very limited light selected their resting places very quickly, and in an irregular manner. In short, Kettlewell made a grave error in assuming that *Biston betularia* moths rested (or slept) on tree trunks.

Researchers investigating these moths' behavior in their natural habitat confirmed Mikkola's findings. In a 25-year study, Sir Cyril Clarke and his colleagues stated that they only found one peppered moth on a tree trunk.[293] Two researchers well known for their studies in this field, Rory Howlett and Michael Majerus from Cambridge University, stated that they had come up with similar results: "... it seems certain that most *B. betularia* rest where they are hidden ... [and] that exposed areas of tree trunks are not an important resting site for any form of *B. betularia*."[294] Dr. Majerus of the Cambridge University Genetics Department collected their findings in a book, *Melanism: Evolution in Action*. He noted that despite some 40 years of intense research on this subject, he had encountered only two *Biston betularia* moths on tree trunks and stated that this represented the most serious problem facing Kettlewell's thesis.[295] Professor Jerry Coyne of Chicago University, himself an evolutionist, admitted that this fact by itself was sufficient to in-

validate Kettlewell's experiments.[296]

Other researchers, the British biologists Tony Liebert and Paul Brakefield, have confirmed this. In 1987 these two scientists proved that this species of moth generally spends its resting time underneath or on the sides of narrow branches.[297]

The fact we need to concentrate on is that Kettlewell resorted to artificial methods in order to prove evolution through natural selection. *B. betularia* moths sleep beneath horizontal branches, concealing themselves from birds and other predators. The only reason for the experiments to ignore such an important fact is Darwinist dogma. Evolutionists feel justified in engaging in all kinds of distortions to find evidence for Darwinism. Yet on every occasion, science dashes their hopes.

Deception in the Photographs

Whenever Industrial-Revolution moths are mentioned, images of them resting on tree trunks come to mind. Books about evolution contain photographs of dark and light-colored moths on different trunks. But since peppered moths rest underneath horizontal branches, where do the photos of them on perpendicular trunks come from?

The photographs in question originated with various researchers who carried out experiments on the moths in the last half century, and were determined to have been used taken using either one of two different fraudulent techniques.

One was to stick dead moths to a tree trunk with pins or glue (the method preferred by many researchers after Kettlewell).[298] Photographs of the affixed moths were later duly used in books, with no explanation given, as if these insects were photographed alive, in their natural environment. Documentaries and television programs have also employed this same method in.[299]

A second and different technique exploits the fact that *B. betularia* moths have only limited ability to move in the daytime. The insects in a rather somnolent state, have been placed on tree trunks by hand. Since they remained immobile, they were easy to photograph. As stated by the Massachusetts University biologist Theodore Sargent, many photographs have been obtained in this way and used in textbooks.[300]

This practice "is not science, but myth-making,"[301] in the words of Dr. Jonathan Wells, from the California University Department of Molecular Cell Biology.

This practice cannot, of course, be regarded as in any way excusable. For the last 20 years, it has been known that

For the last 20 years, it has been known that the "Industrial Revolution" moths did not rest on tree trunks. Yet such misleading and fake photographs as shown here are still reprinted in textbooks and evolutionist publications for the sake of producing falsified evidence to prove Darwin's theory. They thus deserve a notorious place in the history of Darwinism, which is filled with frauds and scandals.

these moths do not rest on tree trunks. In other words, the phtographs in question do not reflect the truth. Yet these fraudulent illustrations are still used in evolutionary textbooks, for the sake of providing supposed evidence for the theory. They thus deserve a special place in the history of Darwinism, filled as it is with falsehoods and scandals.

Admissions by an Evolutionist Scientist

We have so far examined certain errors and mistakes in Kettlewell's experiments, to which Darwinists have pinned so many of their hopes: According to intensive research in Britain and America, the distribution of melanic moths in clean and polluted regions is very different from what's expected. Contrary to expectations, there is no correlation between lichens and melanism. *B. betularia* moths do not rest on tree trunks. Another element that invalidates the experiment is the ignoring the fact that these animals are nocturnal.

These and other errors have been brought out by various researchers in scientific books and papers in recent years. Michael Majerus' book, *Melanism: Evolution in Action*, published in 1998, is one of these. Professor Jerry Coyne, of Chicago University's Department of Ecology and Evolution, introduced the book in question in an article published in *Nature* magazine on 5 November, 1998, and stressed its importance:

> *From time to time, evolutionists re-examine a classic experimental study and find, to their horror, that it is flawed or downright wrong ... Until now, however, the prize horse in our stable of examples has been the evolution of "indus-*

trial melanism" in the peppered moth, Biston betularia, presented by most teachers and textbooks as the paradigm of natural selection and evolution occurring within a human lifetime. The re-examination of this tale is the centerpiece of Michael Majerus's book, Melanism: Evolution in Action. Depressingly, Majerus shows that this classic example is in bad shape, and, while not yet ready for the glue factory, needs serious attention. [302]

In addition to those errors listed above, Professor Coyne has also indicated the existence of other serious ones. He described his feelings after learning the truth of the matter:

Finally, the results of Kettlewell's behavioral experiments were not replicated in later studies: moths have no tendency to choose matching backgrounds. Majerus finds many other flaws in the work, but they are too numerous to list here. I unearthed additional problems when, embarrassed at having taught the standard Biston story for years, I read Kettlewell's papers for the first time ... My own reaction resembles the dismay attending my discovery, at the age of six, that it was my father and not Santa who brought the presents on Christmas Eve. [303]

This forthrightness and honesty in describing the true facts by evolutionist Professor Coyne, who still works mainly in the field of genetics, is most noteworthy.. No doubt that the duty of anyone who claims to be guided by scien-

tific thinking is to share the shame and disappointment felt by Coyne, to evaluate hollow Darwinist theses objectively and honestly, and to forthwith rid himself of evolutionist dogma.

Kettlewell's Tale Should be Removed from the Scientific Literature

Besides committing a number of errors, Bernard Kettlewell also ignored one very important factor. It is not only the species *B. betularia* in which melanic forms have spread in the wake of environmental pollution. An increase in dark-colored individuals had been observed in other insect species. Some 100 cases of melanism had been identified in various life forms.[304] For example, dark- colored form had increased in the two-spotted ladybird, Adalia bipunctata, while light-colored individuals declined in numbers.

The colors in the two-spotted ladybird, approximately 3.5to 5.5 millimeters (0.1378 to 0.1969 of an inch) in size, exhibit variation.[305] But birds do not hunt these insects because they find their taste unattractive.s In other words, there is no question of dark-colored individuals not being eaten by birds simply because they are better camouflaged. Since melanic ladybirds absorb solar energy and environ-

mental heat better, they are better adapted to smoky environments. This phenomenon is known as *thermal melanism.*[306] Every living thing has been created with systems and forms to allow it to survive in the environment where it lives. For example, the two-spotted ladybird is seen to lighten in color in low temperatures and to darken in high temperatures.[307] In other words, ladybirds' colors can change and darken according to temperature, which rises in tttline with air pollution.

The clear significance of this has been known for long time. Melanism in moths may come about under the impact of very different factors beyond those claimed by Kettlewell. Indeed, three biologists—Theodore Sargent, Craig Millarand David Lambert—set out these likely factors in a paper published in 1998: These include probable difference in the moths' and/or in their larvae's tolerances towards toxic or harmful chemical substances, and their sensitivity to parasites. These three researchers evaluated the case of the Industrial-Revolution moths, mythologized by evolutionists, in these terms: "There is little persuasive evidence, in the form of rigorous and replicated observations and experiments, to support this explanation at the present time."[308]

Similar views have been expressed by many other scientists. According to the Italian biologists Giuseppe Sermonti and Paola Catastini, "Kettlewell's experiments do

not prove in any acceptable way, according to the current scientific standard, the process he maintains to have experimentally demonstrated." They concluded that, "The evidence Darwin lacked, Kettlewell lacked as well." [309] In short, the evidence that Darwin couldn't supply is still lacked by contemporary evolutionists.

The views of the Japanese biologist Atuhiro Sibatani on this subject represent a definitive judgment for evolutionists: "... the story of industrial melanism must be shelved, at least for the time being, as a paradigm of neo-Darwinian evolution ..." [310] According to Sibatani, excessive devotion to neo-Darwinist theory led to other factors being left completely out of the equation. In addition, it led to regarding weak evidence—for melanism being dependent on natural selection—more favorably than it actually should have been. But this is not surprising in the least, because Darwinists have always resorted to all kinds of methods to advance the theory of evolution's acceptance.

The story of the Industrial- Revolution moths is just another one of the countless hollow evolutionary proofs produced for the sake of validating the theory.

Professor Jerry Coyne says that it should be removed from the scientific literature, and describes the lessons to be learned from it:

First, for the time being we must discard Biston as a well-

understood example of natural selection in action, although it is clearly a case of evolution ... It is also worth pondering why there has been general and unquestioned acceptance of Kettlewell's work. Perhaps such powerful stories discourage close scrutiny. [311]

Darwinism's Fanatical Supporters

Clearly, all the scientific findings on this subject point to one single truth: The story of the Industrial-Revolution moths is of no scientific worth at all, and must assume its place among the discredited so-called proofs of evolution. Nonetheless, some Darwinists still insist on defending this story at all costs.

Most biology textbooks devote space to Kettlewell's account story and these fraudulent photographs. For example, the 2000 edition of *Biology* by Kenneth Miller and Joseph Levine refers to Kettlewell's research as a "classic demonstration of natural selection in action."[312] Similarly, according to another textbook, it is "a classic example of natural selection." [313]

You can encounter similar statements in encyclopedias that engage in Darwinist propaganda. For instance, the 2001 edition of the *Encyclopaedia Britannica* describes

Kettlewell's classic story in detail, and still portrays it as an illustration of natural selection, even though its erroneous nature has been proved and documented.[314] According to Paul M. Brakefield, "The peppered moth, *Biston betularia*, is rightly regarded as a striking example of adaptive change through natural selection and as one of the foundation stones for the modern synthesis of evolutionary theory" [315] and became a striking example of rapid evolutionary change.[316]

In the book titled *The Illustrated Origin of Species*, Richard Leakey wrote:

> *The peppered moth is a striking example of evolution in action... but, sadly for Darwin, no one knew it at the time. This is just the evidence he needed to show the effectiveness of natural selection."*[317]

These and similar statements reflect the dreams of bigoted supporters of Darwinism, but are of no scientific worth. Modern science makes clear that the story in question lacks any foundation and that there is no such thing as evolutionary change.

One evolutionist book written for the purpose of supporting evolution says;

> *Consider the well-known example of industrial melanism in the British peppered moth, Biston betularia. Few high*

school biology texts fail to mention this study, yet few students seem to understand what it is that this example demonstrates. Clearly, environmental pressures, through natural selection, can effect rapid shifts in the genotype of a population ... This is evolution in action, under observation.[318]

These and similar extracts are examples of Darwinist demagoguery. Nothing about this observed difference in the levels of light and dark-colored individuals in the moth population can represent evidence for evolution in the light of scientific research. That is the only truth to emerge from 150 years of intensive research.

Certain journals are determined to keep Darwinism alive at any cost, but their attitude is incompatible with true science. The following quotation from *New Scientist* magazine is an example: "The peppered moth remains one of the best examples of evolution in action."[319]

In this way, albeit unconsciously and unwillingly, evolutionists are once again confirming an important fact. This example, portrayed as the best and most explicit proof of evolution, is actually a clear proof that evolution lacks any evidence whatsoever. The famous "proof" again reveals the invalidity of a theory that claims to possess incontrovertible evidence.

Belief in Evolutionary Change in Moths

The concept of natural selection lies at the very root of Darwinism, a claim emphasized even in the title of the book in which Charles Darwin set out his theory: *The Origin of Species by Means of Natural Selection.* Ever Since Darwin, evolutionists' greatest endeavors have been aimed at proving his claim.

The linguist Steven Pinker, one of Darwinism's foremost spokesmen, expresses the importance that natural selection holds for evolutionists: "Because there are no alternatives, we would almost have to accept natural selection as the explanation of life on this planet even if there were no evidence for it." [320]

In his book *How Does the Mind Work?* Pinker's first example of evolution by way of natural selection is the story of melanism in the moths. As you have already seen, however, this is a tale of no scientific value at all. But in the absence of any evidence as to its veracity, evolutionists assume that evolution is true, as Pinker does, and seek to adapt everything else to this thesis. That being the case, a story such as that of the Industrial Revolution moths, which clearly conflicts with scientific facts, is still credited out of devotion to Darwinism.

The American biologist Dr. Jonathan Wells stresses that this is a belief held to be true:

> *No scientist with any integrity would point to the peppered myth as "a core example of natural selection." Without evidence, the assertion that melanism in peppered moths was due to natural selection is a faith-statement, not a scientific inference.* [321]

In his book *Icons of Evolution*, Wells devotes particular attention to the tale in question and sets out his conclusion:

> *In 1986, evolutionary biologist John Endler wrote a book entitled Natural Selection in the Wild, now acknowledged to be a classic in the field. At the time, Endler was unaware of the problems being unearthed in the peppered moth story, so he listed it as one of the few cases in which the cause of natural selection was known. But he also declared that "the time has passed for 'quick and dirty' studies of natural selection." Although most researchers are "satisfied in demonstrating merely that natural selection occurred," Endler wrote, "This is equivalent to demonstrating a chemical reaction, and then not investigating its causes and mechanisms. A strong demonstration of natural selection combined with a lack of knowledge of its reasons and mechanisms is no better than alchemy."*
>
> *... Kettlewell's evidence for natural selection is flawed, and the actual causes of the change remain hypothetical. As a scientific demonstration of natural selection—as*

"Darwin's missing evidence"— industrial melanism in peppered moths is no better than alchemy. [322]

In the Middle Ages, alchemists mixed copper with various other substances and believed that copper could be turned into gold through the method of trial and error. Science, however, has clearly revealed that no matter how many experiments they perform, alchemists will never succeed and that their hope is merely a dream. Evolutionists who seek to account for the origin of species in terms of mutations and natural selection are facing exactly the same defeat as the alchemists. Scientific discoveries are shattering Darwinists' hopes and demonstrating the invalidity of their evidence.

Contrary to evolutionist assumptions, these mechanisms have no properties that can cause one species to change into another. The Industrial-Revolution moth, a tale that is cited as an example of evolution through natural selection at every available opportunity, is one of evolutionists' unforgettable errors.

Moths Have Always Remained Moths

So far, you have seen how this tale was mythologized in order to produce evidence for evolution, and how unscien-

tific methods were resorted to in order to influence the public. The industrial melanism in moths has nothing whatsoever to do with the thesis of evolution. Even if, for a moment, we ignore everything we have learned so far and accept Kettlewell's tale at face value, it will still be no more than a supposed proof of so-called evolution.

Dark-colored moths of the species *Biston betularia* already existed in England years before the Industrial Revolution; light-colored individuals represented the majority of the population, and dark individuals were in the minority. As a result of the Industrial Revolution's increasing air pollution, this ratio was reversed, and darker forms came to constitute the majority. Following the introduction of anti-pollution laws in the 1950s and the consequent reduction in air pollution, the proportions reversed again: Lighter-colored moths again came to represent the majority of the population, as they had before the Industrial Revolution.

Obviously, the change involved not the moths' color, but their numbers; and this cannot be postulated as proof of evolution. There have been light and dark *B. betularia* moths since observations began, some 200 years ago. Different-colored individuals interbreed with one another. The gene pool of this population has contained combinations belonging to different colors right from the outset. In other words, no genetic information *developed* as a result of

the Industrial Revolution, and no new genes emerged. The *Biston betularia* moth has remained the same species, and there is no question of it turning into any other.

Clearly, nothing in this phenomenon can be described as an instance of evolution. In any case, some adherents of Darwinism do accept this truth. Harrison Matthews, the well known British biologist and evolutionist, says in his foreword to the 1971 edition of Darwin's *The Origin of Species*:

> *The [peppered moth] experiments beautifully demonstrate natural selection—or survival of the fittest—in action, but they do not show evolution in progress; for however the populations may alter in their content of light, intermediate or dark forms, all the moths remain, from beginning to end, Biston betularia.*[323]

In short, the different colors of this species are examples of genetic variation. Changing environmental conditions did not create new genetic information and new characteristics in the moths. Light-colored moths were indeed better adapted to clean environments and darker ones to environments with heavier pollution, but this constitutes no scientific evidence of natural selection.

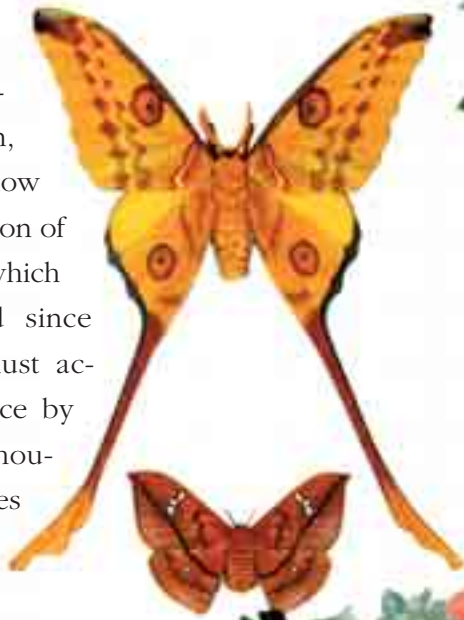
Therefore, even if the moths' melanism were proved to be linked to natural selection in some way, this would still change nothing. All natural selection can do is weed out de-

formed or weak individuals within a population, or those unable to adapt to environmental conditions. Natural selection has no evolutionary power.[324]

Rather than accounting for evolution in the manner Darwin imagined, the phenomena of variation and natural selection represent a magnificent example of a protective principle foreseen by God, Who has created every type of living thing with systems to permit its survival. The organism's genetic system has a function that regulates its features within specific bounds, according to changes going on around it. Were that not so, the slightest change in factors such as climate or food sources could mean the end for that species.

Creation is God's Alone

Charles Darwin was enormously affected by the butterfly species he saw on his travels with the Beagle, and expressed his feeling in these words: "Every one must have admired the extreme beauty of many butterflies and of some moths... No language suffices to describe the splendor of the males of some tropical species."[325] Confronted by these observations, Darwin adopted a highly distorted and mistaken approach and suggested that they had emerged as the result of evolution. Evolutionists who followed him in the 20th century went even further and sought to make use of them.



If evolutionists want to use moths as evidence for evolution, they have to explain how moths answer the question of the origin of species, which has gone unanswered since Darwin's day. They must account for the emergence by evolution of tens of thousands of different species

of moths and butterflies. They also have to explain why 48-million-year-old fossil butterflies are identical to specimens alive today[326] and have remained unchanged for millions of years. How does that square with evolution?

In addition, evolutionists must abandon myths and fairy tales to answer these questions: How did the stunning patterns, dazzling colors and perfect symmetry in butterfly wings emerge? How did they come by their attractive external appearance and defense systems that protect them against predators? How did butterflies' superior flight mechanisms and systems that are marvels of engineering come about? How did metamorphosis—an exceptionally complex mechanism—come into existence? How did the complex program that regulates the transformations from the egg to the caterpillar, the caterpillar to the pupa, and the pupa to the butterfly arise in this insect's genetic code?

Apart from speculation, evolutionists have no answers to these questions. They cannot account for such extraordinary structures and flawless systems in terms of such random factors as natural selection and mutation. Darwinists

are well aware that they have no evidence that these supposed mechanisms produce new species. Deceptions such as the myth of the Industrial-Revolution moths are only proofs of the hopeless position in which evolutionists find themselves.

It is a certain fact that God created butterflies and moths together with their details and the adaptations that respond to their needs, as He did with all other beings in the universe. These are all indications of His omniscience and peerless creative artistry. One verse of the Qur'an states that creation is peculiar to God alone:

Your Lord is God, Who created the heavens and the Earth in six days and then settled Himself firmly on the Throne. He covers the day with the night, each pursuing the other urgently; and the sun and moon and stars are subservient to His command. Both creation and command belong to Him. Blessed be God, the Lord of all the worlds. (Surat al-A'raf, 54)

CONCLUSION

This book has concentrated on certain facts that almost everyone observes, but either ignores or fails to appreciate. The Earth is clearly host to an extraordinary range of life. Species diversity makes human life on Earth possible and establishes a means whereby all human beings' needs are met. Put it another way, biodiversity is of an essential importance to all human beings. Also noteworthy is how the system comprised of countless micro-organisms, plants and animals functions as a whole, in complete harmony and balance. These matters definitely call for deep reflection.

This book has emphasized how the theory of evolution represents the exact opposite of reason, logic and science. You can see with just one example how irrational it is to account for the origin of living things in terms of chance-based evolution. Imagine a palace filled with expensive furniture, furnishings, pictures, statues, ornaments and works of art. A wide variety of rare woods, brightly-colored glass, expensive marble, gold, silver, bronze

and precious stones such as diamonds, emeralds and rubies have been used in its construction and décor. In addition to all this rich splendor, there is also impressive order and harmony.

Is anyone going to declare that this splendid palace arose by chance over the course of time? Could anyone possibly claim that its minerals, raw materials and elements came about as the result of natural phenomena such as wind and rain, sun and lightning?

No rational person of any common sense would ever suggest such a thing. Not even a single picture in the whole palace could possibly have come into existence spontaneously, by chance. Clear the building in question and the works in it were made by human hands. Even if he did not meet the artists, designers, architects and interior decorators in person, nobody could doubt their existence .

Now imagine the huge diversity of life on Earth, so much richer than even the most splendid palace. Think of the claim made by evolutionists that all these living species can come into being as the result of natural processes, chance and coincidence. Such a claim is even more irrational than to say that the palace came into existence spontaneously. As you have seen throughout this book, scientific findings and evidence definitely show that the extraordinary variety of life cannot be accounted for in terms of any

such hollow concept as evolution.

Life and biological diversity are the product of a flawless design and sublime creation. This, in turn, proves the existence of an Almighty and Omniscient Creator. That Creator is God, Lord of the Earth and sky and all that lies in between. All forms of life, from micro-organisms that can only be seen with the help of microscopes to giant trees, reveal the existence and oneness of God. In the same way that every picture points to its own artist, living species point towards God, their Creator. Every living thing we encounter throughout our lives carries messages regarding the infinite might, knowledge and artistry of our Lord. This fact is expressed in a number of verses:

Among His Signs is the creation of the heavens and Earth and all the creatures He has spread about in them. (Surat-ash-Shura, 29)

In the creation of the heavens and Earth, and the alternation of the night and day, and the ships which sail the seas to people's benefit, and the water which God sends down from the sky—by which He brings the Earth to life when it was dead and scatters about in it creatures of every kind—and the varying direction of the winds, and the clouds subservient between heaven and Earth, there are Signs for people who use their intellect. (Surat-al-Baqara, 164)

God has created all living things, those we know and those we do not, such as bacteria, marine and terrestrial plants, vegetables, fruits, trees, fish, insects, birds, reptiles and mammals. Reference is made to God's creation of all the many living species in various verses:

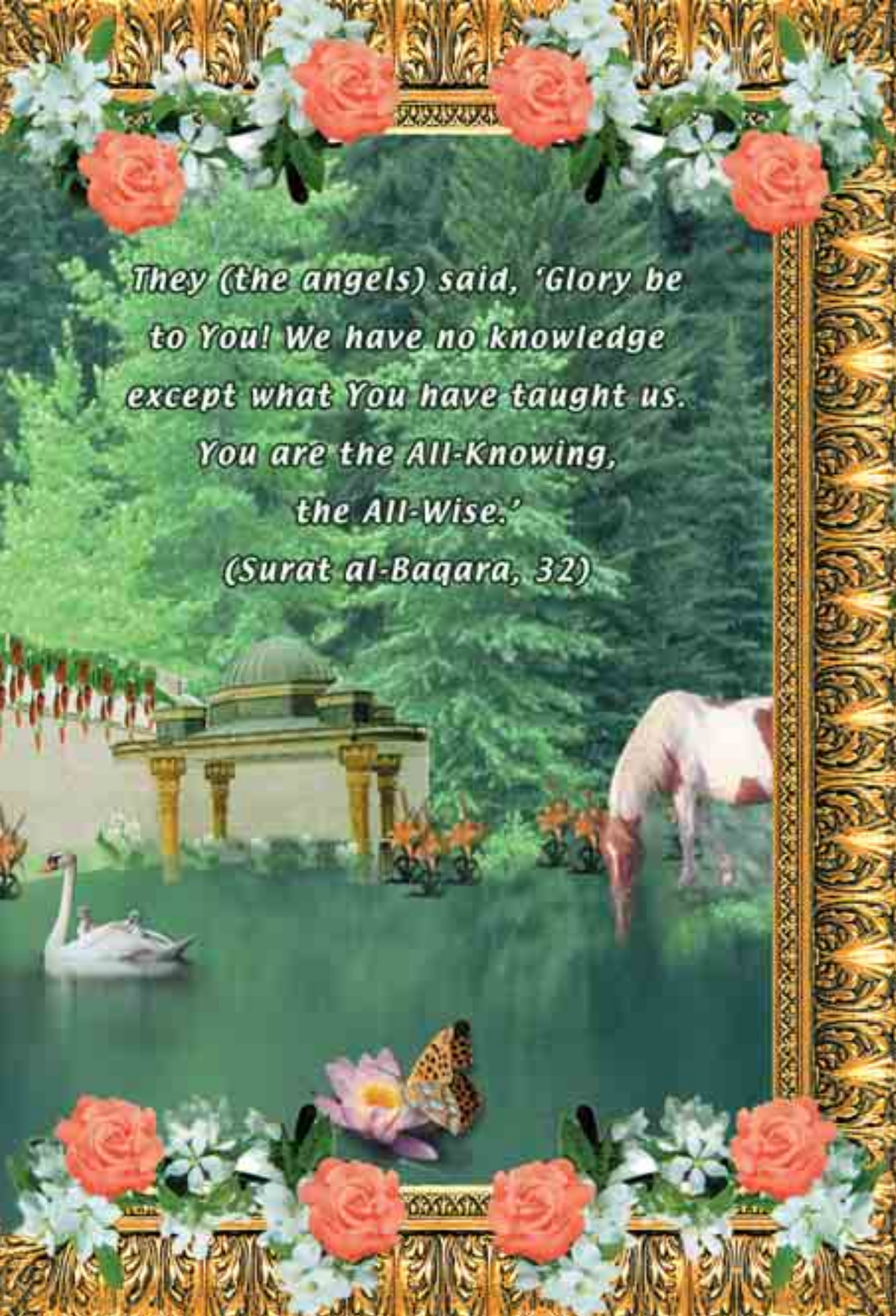
It is He Who sends down water from the sky from which We bring forth growth of every kind, and from that We bring forth the green shoots and from them We bring forth close-packed seeds, and from the spathes of the date palm date clusters hanging down, and gardens of grapes and olives and pomegranates, both similar and dissimilar. Look at their fruits as they bear fruit and ripen. There are Signs in that for people who believe. (Surat-al-An'am, 99)

God created every animal from water. Some of them go on their bellies, some of them on two legs, and some on four. God creates whatever He wills. God has power over all things. (Surat-an-Nur, 45)

From birth to death, everyone lives in the closest of relationships with this variety of living things, so graceful to the soul, that meet all our needs and are each an everyone a matchless, peerless blessing. All the scientific research and observations carried out in order to find the origin of this extraordinary diversity confirm a fact revealed in verses of the Qur'an: Life and biodiversity came into existence

through the will and creation of God. The duty of those who comprehend this fact is to properly appreciate God, the Creator of all things, serve only Him, give thanks to Him alone, live in the manner desired by Him, and seek to attain His mercy, approval and paradise.

They (the angels) said, 'Glory be to You! We have no knowledge except what You have taught us. You are the All-Knowing, the All-Wise.' (Surat al-Baqara, 32)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