



## **Sociobiology is Not a Theory of Evolution but a Branch of Entomology, which Deals with Social Insects**

**Md. Abdul Ahad**

Department of Entomology, Faculty of Agriculture, Hajee Mohammad Danesh Science and  
Technology University, Dinajpur, Bangladesh

\*Corresponding Author: maahad@hstu.ac.bd

**ABSTRACT:** Sociobiology is the latest theory of evolution. Edward O. Wilson, an American entomologist advocates this theory in 1975. The basic principle of this theory is that behavior is under hereditary control. It proposes that new species arise due to changes of social behavior; as behavior changes the gene frequency of an organism. But diverse literatures shows that social behavior is learned and experienced, not inherited. Consequently, evolution of new species through modifications of behavior is not possible. Moreover, only social insects (ants, bees, wasps and termites) and few mammals are social. Hence, this theory is applicable for these few animals. Humans are actually social, nevertheless most biologists and sociologists disagree to apply the idea of Sociobiology to human; as if the human social behavior is inherited then struggle, to desirable social change of the people become needless. Hence, 'Sociobiology Study Group of Science for the People' rejects Sociobiology. Moreover, Sociobiology is based on natural selection but it is opposite to natural selection. In addition, Sociobiology includes different subjects haphazardly but specialists of those subjects opposed strongly Sociobiology. It is claim that Sociobiology is based on Neo-Darwinism but any biologist included it an agent of Neo-Darwinism. Moreover, Neo-Darwinism is based on mutations, which is serious deleterious. There is no known example that a reproductive isolated organism arises through natural mutation or induced mutation. Although breeders have developed some new plants varieties through induced mutations, yet it backs to wild type over time. In addition, there is only journal of Sociobiology. But the title of the journal, its contents and the editorial announcements proved that Sociobiology is not a theory of evolution but a branch of entomology, which deals with social insects. E.O. Wilson is also an entomologist.

**Keywords:** Darwinism, Neo-Darwinism, Anthropology, Wilson, Animal Behavior, Self-Sacrifice, Ecologies.

### **INTRODUCTION**

The theory of evolution is generally considered the most important fundamental concept of biology and nearly all scientists support it. Evolution suggests that life arose through natural process from non-living originators and achieved its present diversity (variety) including man. According to the World Book

## Sociobiology is Not a Theory of Evolution but a Branch ...

Encyclopedia of Science, all species of living organisms have evolved from simpler organisms over a vast period of time. Human beings, like all other plants and animals, have evolved from simpler organisms. Darwin defined evolution as descent with modification through natural selection from a few ancestors (Darwin, 1859). The evolutionary flowchart may be as follows:

Organic matter → Unicellular organism → Invertebrate → Lung fish → Amphibian → Reptile → Placental mammal → Higher mammal → Man <sup>1,2,3</sup>.



**Fig 1.** Edward O. Wilson

Sociobiology is the latest theory of evolution. The term Sociobiology can be traced to the 1940 and coined by Edward O. Wilson (an American entomologist) at a conference on genetics and social behavior. It became widely used after it was popularized by him (Edward O. Wilson) in his book 'Sociobiology: The New Synthesis' in 1975. It is declared that Sociobiology is the systematic study of the biological basis of all social behaviors <sup>4</sup>. It is the study the effect of natural selection on social behaviors. Additionally, it is a new discipline that applies evolutionary principles to explain the behaviors of all social animals including man. The basic principle of this theory is that social behavior is inherited by a gene <sup>5</sup>. According to this idea evolutionary change is caused initially by a change due to behavior. By their habit, animals change the physical or the social conditions and thus affect the successive courses of evolution. So, it is assumed that particular forms of behavior (especially social behavior) are hereditarily linked to a species and transmitted to the offspring as well as helps in evolution. In addition, the extension of neo-Darwinian principles to social behavior gave birth to the discipline of Sociobiology <sup>6</sup>. The foundation of sociobiology is the Neo-Darwinism theory of evolution. It (Sociobiology) is the looking glass of modern synthetic theory. By Sociobiology we are to understand Neo-Darwinists Sociobiology <sup>7</sup>.

However, at first, sociobiology gained attention only in biological circles; even there it had strong critics. When sociologists and psychologists caught wind of it, the controversy really got started. At that time, sociology was predominantly structural-functionalist, with a smattering of Marxists and feminists. Psychology was still dominated by behaviorist learning theory, with humanism starting to make some headway. Not one of these theories has much room for the idea that we, as human beings, could be so strongly determined by evolutionary biology. Additionally, one critique of the theory is that it is inadequate to account for human behavior because it ignores the contributions of the mind and culture. A second critique of sociobiology is that it relies on genetic determinism, which implies approval of the status quo. For example, if the male aggression is genetically fixed and reproductively advantageous, critics argue, then the male

aggression seems to be a biologic reality in which we have little control. What is more, when Edward O. Wilson published *Sociobiology*, it generated a firestorm of criticism, mostly focused on the book's final chapter, in which Wilson applied lessons learned from animal behavior to human society<sup>8</sup>. Besides, *Sociobiology* is more controversial, when it attempts to explain various human social behaviors in terms of their adaptive value for reproduction. Many of these behaviors, according to one objection, are more plausibly viewed as cultural constructs or as evolutionary by-products, without any direct adaptive purpose of their own. Some sociobiology's—Wilson in particular—have been accused of attributing adaptive value to various widespread but morally objectionable behaviors (such as sexism and racism), thereby justifying them as natural or inevitable<sup>9</sup>.

Nonetheless, Wainwright methodically proved that the origin of species without Darwin -Wallace theory. But there is no work whether those criticisms of *Sociobiology* are right or not and evolution of new species arise through changes of behavior is possible or not<sup>10</sup>.

Therefore, it is necessary to work on these objectives. But reviews of literatures reveal that such type of work is scanty in the present biological world. So, the aims and objectives of this article are to clarify the idea of *Sociobiology* with concentrated information, most organized form and strong evidences; as well as whether evolution of living organisms occur through changes of behavior or not. To work on this objectives are the demand of the modern science. This article will be helpful to the student of biologists, ecologists, anthropologists, geologists, palaeontologists, sociologists, psychologist, archaeologists and who thinks evolution.

### **Social Behavior is learned and Experienced but Not Inherited**

The basic principle of *Sociobiology* is that social behavior is inherited (biological determination). It means social activities cannot be changed in fundamental way. So, it is a waste of time to try to modify the social behavior of people by the social programmers. On the contrary, it is obeyed that social patterned (any undesirable traits of human) are molded by culture, learning, education, incentive, and by the social programs. Consequently, the Government of all countries and different NGOs try to removes the unwanted habits of the people through different ways. Johnson reported that it is true that learning has a great impact on humans behave. It is perfectly clear that most of the manners are transform by experience. So, human culture and behavior are changed very rapidly. Additionally, it is reported in the 'World book Encyclopedia' that animals are able to learn ways of coping with the environment. Thus they modify their behavior to deal with the problem that they have encountered before. Even they have ability to learn and remember it to certain extent depended upon the life its

## **Sociobiology is Not a Theory of Evolution but a Branch ...**

leads. For example, a worker bee must be able to learn the position of its hive and of flower that are good for foraging <sup>11</sup>.

### **World Renowned Sociologists disagree with the idea Sociobiology**

Sociology studies the behavior that related to social. So, Sociobiology is considered as a branch of sociology. The basic principle of Sociobiology is that behavior of animal is controlled by the gene. In opposition, sociologists do not obey the idea (behavior of animal is controlled by the gene) of Sociobiology. There are diverse literatures, which oppose this concept of Sociobiology but a few is placed here:

(i) Sociologists disagree with sociobiological explanation of evolution as well as many of them have strongly attacked the main principles of Sociobiology. It is pointed out that the analogies between human and other animal behaviors are fundamentally faulty. As one can no more explain human behaviors in terms of the genetic principles that govern the behavior of a sheep. Human beings differ from other animals in their capacity for cultural-learning. As human has huge cerebral cortex, the part of the brain that is responsible for higher mental functions such as theoretical thought. Comparative photograph of human brain, other primates and animal species show that the cerebral cortex is entirely absent in most animals. Even in the species that have cerebral cortex, such as the other primates; it is relatively undeveloped. Again, human individuals and human cultures exhibit such a confusing variety of behaviors that indicates it is not governed by their DNA. Some Sociobiology's including Edward O. Wilson (who is generally considered to be the father of this theory) also admits this. However, he believes that future research is likely to provide the evidence that necessary to demonstrate the biological roots of human culture. Again, cultural universals, the ideology of Sociobiology is very controversial. Since it serves to unite rather than divide humanity by declaring that all cultures of humans share the same evolutionary histories; though Sociobiology has little scientific proof in favor of its claims. As a result, many workers, both of natural and of the social sciences feel uneasy about use of Sociobiology in evolution <sup>12</sup>. Wade reported that the ideology of Sociobiology has been so controversial that E. O. Wilson has been protested and even water had been thrown in his face at the meeting of 'American Association for the Advance of Science' in 1978<sup>13</sup>.

### **Sociobiology Study Group of Science for the People' opposed Sociobiology**

Edward book (Sociobiology: The New Synthesis) was subject to heavy criticisms by the "Sociobiology Study Group of Science for the People". For example, Stephen, Maynard-Smith and Warren as well as many others feared to the use of evolutionary principles of Sociobiology to human society. They believed that Sociobiology is naturalistically misleading notion and several academics oppose to Wilson's idea. They declared that Wilson's theory is not logically supported as it ignores the learning and culture. According to the 'Stanford

Encyclopedia' the basic principle of Sociobiology is not true. Hence, it is declared that Sociobiology is politically dangerous and scientifically doubtful. Bateson pointed out that like social Darwinism, Sociobiology has considerable sociopolitical implication and he wrote an article 'Sociobiology and Human Politics' <sup>8</sup>.

### **Sociobiology Stands at the Opposite Pole of Natural Selection**

It is acknowledged that Sociobiology is the study of the effects of natural selection on social behaviors. Even, natural selection shapes the behavior. Again, Sociobiology is based on altruism (self-sacrifice) within the species and it is the study of social behavior/co-operation within the species. Furthermore, Sociobiology involves the assumption that all characters of organisms have arisen out of the competition for survival and reproduction. On the other hand, according to natural selection all organisms in nature are at war, one organism with another, or with external nature. Moreover, it is pointed out that in nature this relation can ever be as simple as this. Battle within the battle must ever be persistent with varying success, natural selection acts by competition; competition is the universal. Likewise, in a struggle for existence in which the weakest and the least perfectly organism must always surrender. So, according to natural selection animals should behave selfishly, channeling all of their time and energy into their own survival and reproduction. Consequently, Sociobiology is conflicting with the 'natural selection' and stands at the opposite pole of objectivity<sup>14</sup>.

### **Anthropologists and Cultural Ecologists Oppose the Sociobiological Explanation of Evolution**

The main contribution of Darwinism is anthropology. Sociobiology is studying in the field of Anthropology <sup>3</sup> and anthropologists study the evolution of human culture from a tribal society to a complex industrial society. Nevertheless, anthropologists and cultural ecologists oppose the basic principle of Sociobiology (i.e 'social behavior' is inherited). Ember and Ember drew attention that many anthropologists are unfavorable to the idea of sociobiological explanation of evolution; as the common behavior (for example, all human societies have marriage system, and a division of role between males and females), have no genetic basis. Cultural patterned is learned and sometimes it may be universal, because it has been educated universally. They (anthropologists) also claim that Sociobiology has aroused a lot of controversy in cultural anthropology. For instance, most cultural anthropologists would say that human culture could not have evolved in the absence of some genetically determined characteristics (such as a large brain or the mouth and throat anatomy required for spoken language), the varieties of culture observed in the human society are mainly learned. In contrast, Sociobiology's suggest that custom of an animal, including the social behavior of human is the product of evolution.

## **Sociobiology is Not a Theory of Evolution but a Branch ...**

### **Psychologists Fight the Sociobiological Clarification of Evolution**

Sociobiology is very closely allied to the fields of human behavioral ecology and evolutionary psychology. This theory (Sociobiology) is studying in the field of psychology. In opposition, psychologists deny the sociobiological explanation of evolution. For example, the great American psychologists Cider et al. affirmed that Sociobiology is based on altruism (or self-sacrifice) but many people object to a thesis on altruism that does not speak to the social situation in which altruism takes place. E. O. Wilson, the father of Sociobiology, who feels that only about 10% of human social behaviors can be explained through genetics, but he unwillingly admit that the rest 90% social behaviors cannot be explained through the inheritance. Psychologists Washburn pointed out that there is no hard evidence that specific genes exist for altruism or social behavior. As a result, many opponents accuse that Sociobiology is misleading<sup>15</sup>.

### **Sociobiology Includes Different Subjects, Which Make This Theory Very Complex to Understand**

Sociobiology includes different subjects, terms and ideas haphazardly, which make this theory very complex and not easy to understand: i) E.O Wilson defines sociobiology as the extension of population biology and evolutionary theory (neo-Darwinism and Darwinian theory) to social organization ii) according to 'Internationals Encyclopedia of the Social and Behavioral Sciences' Sociobiology's use theories from population biology, genetics, and ecology to predict and explain the evolution of social behavior and its diversity, within and between species (IESBS., 2014 iii) behavioral ecology ; iv) cultural ecology; v) current evolutionary approaches to human behavior; vi) dual inheritance theory vii) evolutionary psychology viii) evolutionary social sciences (; ix) pop Sociobiology ; x) evolutionary anthropology ; xi) narrow sociobiology ; xii) sociobiology and neuroscience ; xiii) in addition, according to 'Wikipedia, the free encyclopedia' Sociobiology is often considered a branch of biology and sociology, it also draws from ethology, anthropology, evolution, zoology, archaeology, population genetics, and other disciplines. Within the study of human societies, sociobiology is very closely allied to the fields of Darwinian anthropology, human behavioral ecology and evolutionary psychology. Hence, it includes different subjects, terms and ideas haphazardly, which make this theory very complex and not easy to understand<sup>15, 16, and 17</sup>.

### **Sociobiology is as not an agent of Neo-Darwinism or an agent of Evolution and not a scientific theory**

There are many agents of neo-Darwinism /synthetic theory (as well as evolution) forwarded by different world-renowned biologists and geneticists. But nobody include Sociobiology/ animal behavior/ behavior /social behavior/altruism as an agent of neo-Darwinism, even an agent of evolution. The agents of synthetic theory (neo-Darwinism/ evolution) are: i) natural selection and mutation ii) natural selection with Mendelian and molecular genetics. iii) Natural selection, migration,

pure chance and non-random mating. iv) natural selection, hybridization (migration or gene flow), genetic drift or pure chance v) mutation, recombination, genetic drift and natural selection vi) natural selection and population genetics vii) natural selection and mendelian genetics, viii) natural selection, gene mutation, changes in chromosome number and structure, genetic recombination, reproductive isolation and gene flow . ix) Natural selection, mutation, recombination, genetic drift, immigration and nonrandom mating.

Therefore, it is clear that any biologist or any geneticist include Sociobiology/ animal behavior/ behavior /social behavior/altruism as an agent of neo-Darwinism or as an agent of evolution. So, Sociobiology has no relationship with neo-Darwinian principles as well as evolution. As a result, many scientists declared that sociobiology is not a theory of evolution. For instance, Popper and Saunders affirmed that sociobiology is not a theory of evolution as well as it is not a scientific theory. In addition, "Sociobiology Study Group of Science for the People' declared that Wilson's Sociobiology is not scientifically or logically supported and Sociobiology is not a scientific theory<sup>16, 17</sup> .

### **Fundamental weakness of Sociobiology is it based; the Neo-Darwinism, which is based on severe harmful mutation**

It is declared that the fusion of mutation with natural selection is known as neo-Darwinism. However, mutations have several characters, which are very harmful to living organisms and destroy them. There is no known reference that mutation is beneficial to animal and an animal variety / species is developed either artificially or naturally. Sometimes artificial/induced mutation may be beneficial to plants. As a result, breeders develop some plant varieties/races, which back to the wild type sooner or later. So, natural selection has inactive in neo-Darwinism to produce new species. There are numerous literatures about these but few are place here:

#### **(i) Mutations are an accident, and error that cannot produce something new rather it destroys living organisms**



Fig 24. A albino baby. Albinism (adapted from Fitzpatrick et al., 1993)



3



4



Ancon sheep

## Sociobiology is Not a Theory of Evolution but a Branch ...

**Fig2.3.4.** Albinism, Red blood cell change to sickle shape cell  
Normal sheep, Ancon sheep

Gene synthesizes the new gene, which is exactly like the original gene and remains unchanged throughout the life. So, production of new DNA is impossible and possible due to error of DNA replication. Furthermore, mutation occurs through an accident. Error and accident cannot produce something good; rather it destroys the living organisms. As a result, mutation frequently blocks the metabolic pathway and evolutionary geneticists readily acknowledge that about 99.90% mutations are harmful. In addition; mutant gene is responsible for genetic disorders. So, mutated organisms suffer various abnormalities. For example, more than 3,500 abnormalities (diseases) are observed due to a gene mutation in human alone such as albinism, sickle-cell anemia (Fig.3), hemophilia A etc., which have no medical treatment. So, mutated animals are less adapted to the environments. Consequently, the naturally mutated ancon (short-legged) breed of sheep (Fig.4.b) perishes eighty (80) years ago from the earth. In addition, albino baby is fairly common (Fig.3) but we know that albino baby is least fitted than normal baby as well as sensitive to sun heat, as it is disease. It is reported that artificially created mutant animal variety suffers dangerous disease. For instance, mutant 'Sphynx cat', 'Burmese cats' 'Bizarre cats' suffer from dangerous disease. Additionally, over hundreds of chicken mutants (loci) have been shown to have lethal effects such as blindness, wingless, missing maxillae, missing mandible, missing upper beak, nervous disorder etc. Hence, Banerjee drew attention that the improvement of domestic animals through mutation breeding is almost no practical significance. Thus, to produce of a reproductively isolated new animal species through induced or natural mutations is quite not possible. However, plant breeders have developed some plant varieties and races through induced mutation (but not animal variety). These mutated varieties of plant reverse to the original type through segregation over time. So, Snustad and Simons broadcast that mutant organism restore to wild- type. If the wild- type phenotype is restored by back mutation, all the progeny of the back cross will be wild-type. Sinnott and Wilson declared that breeders have developed varieties of corn, apple or other plants, which are not regarded as new species<sup>16, 17, and 18</sup>.

### **ii) Mutations express only in homozygous harmful recessive state**

Most mutations are recessive. It would express its phenotype only in homozygous condition. So, to become homozygous condition it requires repeated self-fertilization (inbreeding) for many generations. But both homozygous states and inbreeding decrease the qualities of offspring as well as these are least fitted to survive. Subsequently, it is confirmed that an individual that are homozygous due to the mutation will not survive; such mutations call recessive lethal mutations.

Additionally, degu, elephant shrew, cheetah, dorcas gazelle, Japanese serow and greater galago show twice juvenile mortality rates when inbred. Again, inbred reduced vigour, reproductive ability as well as yield (due to increase homozygous). Consequently, several species of plant such as alfalfa (*Medicago sativa*) and carrot do not survive due to inbreeding<sup>19</sup>.

**iii) Mutations are random**

Mutations are random. It changes the gene frequency and nucleotide randomly. Ranganathan affirmed that a random change of a pocket watch will not improve the watch; rather does harms it or at very best be neutral to it. Again an earthquake does not develop a city; rather it brings destruction to it. As a result, it is mention that a random change is never beneficial to an extremely smoothly operating organized living system. Any random change in an efficient organism is likely to decrease rather than increase its efficiency<sup>1, 12, and 16</sup>.

**iv) Successive mutations is impossible, which produce new species**



**Fig5.** Double Headed a Snake

Actions of mutations on a successive generation produce new species. Again, mutations are rare and in human one mutation found in  $10^4$  to  $10^6$  people. The modern concept of evolution is that 'an individual does not evolve; rather the entire population of a particular species evolves. In Addition, evolution is a change in the genetic composition of population. So, successive mutations are required on every individual of the whole population and it should be continued for several successive generations of a particular species, which is quite impracticable and are unthinkable. As a result, though mutated double headed *Drosophila* (Fig.5), double headed snakes (Fig.5), albino snake (Fig.5), albino toad (Fig.5), albino rat (Fig.5), albino giraffe (Fig.5), albino plants (Fig.7) are frequently found in nature; as successive mutations are unthinkable; so, a species of double headed *Drosophila*, a double headed snake, albino toad (Fig.5), albino rat (Fig.5), albino giraffe, albino plants (even variety) yet is not develop naturally or artificially.

**v) World-renowned American biologists admit that development of new species through mutations is impossible**

## Sociobiology is Not a Theory of Evolution but a Branch ...

World renowned three American geneticists Edmund, Sinnott, Dunn, and Dobzhansky affirmed that most mutations have harmful effects. So, how can this fact are prepared to accept with the theory that the process of mutation is the source of evolution? But they answered themselves that some mutations are beneficial such as mutant colon bacteria are resistance to bacteriophage. They again opined (another place in their book ) that bacterial mutants may lose virulence even susceptible to antibiotics and can be attacked by bacteriophages .However, bacteria resistance to bacteriophage; is not an evolution, if so, a new species or variety of a colon bacteria yet not produced either artificially or naturally through the action of mutation. Snustad and Simons broadcast that mutant organisms restore to wild-type. If the wild-type phenotype is restored by back mutation, all the progeny of the back cross will be wild-type. Smith also announced that if DDT spraying is stopped, DDT resistant mutant flies will be reversed and resistance flies will largely disappear from the fly population. As well, Kimball declared that any change in a gene is far more likely to produce a harmful effect than a helpful one. Most mutations are harmful to living organisms and due to this many people question: how this process can provide progressive evolutionary changes? The solution is that problem is probably historical; it needs billions of years. Once more, if it is true, why bacteria are still unchanged and remain in their own kinds during the last 3.5 billion years? In response, Szent-Gyorgi declared that random shuffling of bricks will never build a castles or the Greek temple, whatever time is available.



**Fig6.** Albino toad

**Fig7.** Albino plant

### **vi) Hardy-Weinberg's principle does not support produce of new species through the agents of neo-Darwinism**

Hardy-Weinberg's principle advocates that gene frequency remains constant generation after generation in sexual reproduction organism. If it is disturbed by the agents of neo-Darwinism, it will be reestablished just after one generation of random mating <sup>10</sup>. As a result, mutated albino is common among mammals, fishes, amphibians (Fig.6), reptiles and birds. Since these mutant organisms are re-established and back to the original parent type just in one generation of random mating. Consequently, a species even a variety of those albino animals are not yet developed either naturally or even artificially by the action of mutations.



**Fig 8.** Interbreeds

**Fig 9.** Black moth, white moth

**v) The claimed dramatic example of evolution new species through mutation is not true**

It is claimed that white moth (*Biston betularia*) modified into black moth (*Biston carbonaria*) (Fig.9) by mutation of a gene (*carbonaria*) due to industrial pollution in England. But *B. betularia* is still common in the unpolluted areas of the Western and the Northern Great Britain (Smith, 1990). The principles of evolution is 'an individual does not evolve; rather the entire population of a particular species evolves'. So, it does not fulfill the principle of evolution. Furthermore, Macken declared that the *carbonaria* interbreeds with *betularia* (Fig.8) and produces fertile offspring. So, *B. carbonaria* and *B. betularia* are not reproductively isolated; so, they belong in the same species. In addition, many biologists opined that *Biston betularia* do not is modified into *Biston carbonaria*. Instead it is fluctuation of *Biston betularia* and *Biston carbonaria* due to birds' predation.

vi) Natural selection plays driving force of evolution. But it is seen mutation fails to create fittest organism, which may be regarded as an animal species (even variety) or as plant species. Therefore, tend to be eliminated from the population by natural selection.

**Sociobiology is a Branch of Entomology, Which Deals with Social Insects**

Sociobiology is a branch of entomology, which deals with social insects; the following literatures prove this statement:

i) There is only one journal of Sociobiology entitles 'Sociobiology: An international journal on social insects' (Its five years impact factor is 0.58).

ii) In the 'Main page of 'Sociobiology' journal it is declared that the serial Sociobiology, published by California State University Chico, was founded by its present editor in 1975 to provide a more timely publication of quality papers by researchers of social animals. Over the years the majorities of the papers has dealt with, but are not limited to, the various aspects of the biology of social insects such as termites, bees, wasps and ants. It is now published regularly by Universidad Estadual de Feira de Santana, Brazil. In addition, there are five section editors of this journal such as: a) section editors: Ants (8 editors), b) section editors: Bees (9

## **Sociobiology is Not a Theory of Evolution but a Branch ...**

editors) c) section editors: Termites (7 editors), d) section editors: Wasps (7 editors) e) section editors: Short notes (2 editors). Among the thirty three (33) section editors, twenty three (23) section editors and all (four) associate editors are from Brazil, but only two (2) section editors from USA and the rest eight (8) section editors from other countries (Kistner, 2014a). It indicates now USA biologists do not support Sociobiology, whereas, Edward. O. Wilson is still alive.

iii) In the home Homepage of Sociobiology, it is declared that Sociobiology publishes the original research articles on: systematic, ecology, genetics, behavior and management of social insects (but not the studies of evolution of social insects).

iv) Del-Claro et al. declared in the editorial of this journal of a special issue 'Arthropod-plant Interactions' that Sociobiology is a journal dedicated to the study of social insects. Thus, social behavior, taxonomic aspects, life history studies and behavioral ecology of ants, bees, wasps and termite win through in published papers ((but not the studies of evolution of social insects).

v) Moreover, since 1975 there are no articles of this journal related to evolution of an animal even evolution of ants, bees, wasps and termites in this journal. Even, there is no a 'keyword' of an article related common ancestor such as evolution, altruism, Darwinism, Neo-Darwinism and Sociobiology etc.

Consequently, the 'journal title', its contents, its websites announcement, the editorial declaration and specialists section editors for specific social insect confirmed that Sociobiology is applicable only for the study of social insects, but not for study of evolution.

As a result, Sociobiology is not a theory of evolution, but just a branch of entomology, which deals with social insects. Edward. O. Wilson is an entomologist also. In addition, it is affirm that (Sociobiology) has no relationship with sociology, ethology, anthropology, psychology, political science and cultural ecology etc.

### **Still biologists support the Darwin's theory of Natural selection but not Sociobiology**

Sociobiology is the latest theory of evolution. But still biologists blindly support the Darwin's theory of natural selection. There are many literatures about this but few are mention here-

Darwin's theory of natural selection still stands as a good expression of evolution. It also provides the best and satisfactory explanation for the evolution of plants and animals; this is the belief of most biologists. Darwin's theory served as an ordering principle of biology; dominates, integrates and influences in all branches of biology. Furthermore, Darwin's name or rather his theory is almost a synonym for evolution. Many biologists accepted the Darwinian theory of natural selection without think .The above importance proved that Darwin's theory is still believed by the biologists as well as the evolutionists but not Sociobiology<sup>14,15</sup>.

## **DISCUSSION**

The theory of evolution is most important of all theories of biology. Sociobiology is the latest theory of evolution. The basic principle of Sociobiology is that social behavior is under hereditary control (biological determination), and proposes that new species arise due to changes of social activities; as it changes the gene frequency or composition of a species. Biologists, sociologists, anthropologists, cultural ecologists, and psychologists oppose the principle of Sociobiology that social behavior is under hereditary control (biological determination). As a result no evolution occurs through Sociobiology. It is a repetition of synthetic theory as well as natural selection. Moreover, it includes different subjects haphazardly, which make the theory very complex and not easy to understand. Castro and Hubner confirmed that any theory might overturn at any time by new evidence. So, evolution through Sociobiology might be rethought<sup>16, 17, and 18</sup>.

### **Conflict of Interest**

**The author has no conflict of Interest.**

**Acknowledgement:** The writer is very much obliged to professor Md. Abdullal-Hel Baqui, Department of Zoology, Jhangir Nagar University, Sava, Dhajka, Bangladesh for the suggestion preparation of the manuscript. The author is thankful to the authority of Google's to use a lot of image from it and also literatures as well as to the authors and to the publishers that mention in the reference for using their information in this article.

### **REFERENCES**

1. Anonymous. what is sociobiology- sociology.com.2014.
2. (Www. sociology.com/...sociobio). Last visited: 31.03.2014 .
- 3 Cosmides L, Tooby J. From Evolution to Behavior: Evolutionary Psychology as the Missing Link. In: Dupre, J. (ed.), *The Latest on the Best* (277–306), Cambridge, MA: MIT press. 1987.
4. Anonymous. Amazon.com: Defenders of the Truth: sociobiology Debate.../www.amazon.com› last visited.2014.
5. Bernstein R, Bernstein S. *Biology: The Study of Life*. Harcourt Brace Jovanovich. Philadelphia. 1982;533 .
6. Ayala FJ, Kiger JA. *Modern Genetics*. The Benjamin Cummings Publishing Co., Inc., California. 1980;641.
7. Mae-Wan H. On not holding nature still: Evolution by process, not by consequence. In: Ho, Mae-Wan and Fox, S.W. (Eds.) *Evolution Process and Metaphors*, John Wiley and Sons, New York. 1988; 117-144 .
8. Bateson P. Sociobiology and human politics. In: S. Rose and L. appignanest (Eds) *Science and beyond*. Blackwell, Oxford. 1985;79-99.

### **Sociobiology is Not a Theory of Evolution but a Branch ...**

9. EB. Sociobiology-Encyclopedia –Britannica ([www Britannica.com/.../sociobio...](http://www.Britannica.com/.../sociobio...)). 2014.
10. Darwin C. On the variation of organic beings in a state of nature, on the natural means of selection; on the comparison of domestic races and true species. *J. Linn. Soc.*1858; 3: 53-62.
11. Bateson P. The active role of behavior in evolution. In: M. W. and Fox, S. W. (Eds) *Evolutionary Process and Metaphors*. HoJohn Wiley and Sons. New York. 1988; 191,193, 197.
12. Jordan EL, Verma PS. *Chordate Zoology and Animal Physiology*. 10th edn. S. Chand & Co. New Delhi; 1990.
13. Castro P, Hubner ME. *Marine Biology*, 2nd edn. WCB/McGraw-Hill. New York.1997;16.
14. Cider AB, Goethals GR, Kavanaugh RD, Solman RD. *Psychology*. Freeman California. 1983; 122, 123.
15. Boyd R, Richerson PJ. *Culture and the Evolutionary Process*, Chicago: University of Chicago Press; 1985.
16. Crossman A. Sociobiology: An Overview. Sociobiology- [sociology-about.com](http://sociology-about.com) ([sociology.about.com/.../Sociobi](http://sociology.about.com/.../Sociobi)). Last visited.2014; 31.03.
17. Robertsons I. *Sociology*, 3rd edn. New York: Worth Publishing.1987 ; 61.
18. Cavalli-Sforza LL, Feldman MW. *Cultural Transmission and Evolution: A Quantitative Approach*. Princeton: Princeton University Press; 1981.