

# The Evolution of Asexual to Sexual Reproduction: The Queen of Evolutionary Problems

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## Abstract

The widely acknowledged problem of the evolutionary origin of sexual reproduction, often abbreviated as “the origin of sex,” is reviewed in detail. The evidence is overwhelming and widely recognized by evolutionists that evolution by small steps cannot bridge the transition from asexual to sexual reproduction. Sexual reproduction cannot occur until both functional and compatible male and female reproductive systems exist. If any part of any component does not exist, reproduction will not occur. As will be documented, the many attempts to bridge this gap have failed.

**Keywords:** The evolution of sexual reproduction, gender, male-female differences, gonads, problems of evolution, Darwinism, sexual selection, sexual dimorphism.

## Introduction

Historically, in Western society, the dominant belief for centuries was the Genesis teaching that the origin of sexual reproduction was a result of creation. After the Darwinian revolution, the origin of sex was explained to be the result of evolution. In short, chance mutations were selected by survival of the fittest, resulting in the evolution of asexual creatures into sexual creatures (Dabhoiwala 2012). Darwinism then “rendered teleology superfluous...adaptations are produced by a blind mechanism...not the result from conscious design” by God (Ghiselin 1974, 24). Thus, when evolution replaced God as the creator of organic life, an evolutionary explanation was sought for all aspects of life including sexual reproduction (Symons 1979, 60). The origin-of-sex problem is widely recognized by evolutionists today, even after 150 years of investigation since Darwin revolutionized the world with his theory. This “masterpiece of nature” is acknowledged as one of the most difficult evolutionary problems, second only to the origin-of-life problem (Trivers 1983). This is the reason why sexual reproduction is called the “queen of evolutionary problems” (Ridley 2001; Smith 2018, xxix).

Furthermore, “no other problem has sowed as much confusion” as have attempts to explain the origin of sexual reproduction (Bell 1982, 19). As Richard Dawkins asked, “Why did sex, that bizarre perversion of straightforward replication, ever arise in the first place?...This is an extremely difficult question for the evolutionist to answer” which he admitted he is “going to evade” due to “the difficulty which theorists have with explaining the evolution of sex” (Dawkins 1976, 46). The late Professor Margulis added in the introduction of her book on sex that “becoming sexual is one [topic] which we will try to steer well clear of throughout this book” (Margulis and Sagan 1986, 3).

Darwin’s Grand Theory teaches that the evolution from asexual marine organisms to sexual terrestrial amphibians, reptiles, and mammals occurred purely by natural means. This requires bridging the chasm between the two very different reproduction systems (Smith 1978). The three main components of sexual reproduction are 1) the gametes (sperm and ova), 2) the gonads (testes and ovaries), and 3) the copulatory organs (penis and vagina). All these systems must, as a set, be compatible for reproduction to occur. As will be documented, in spite of decades of research by some of the leading biologists, this gap has not even been bridged by “just-so” stories. This is a major problem for evolution because this “queen of evolutionary problems” alone refutes Darwin’s *Grand Theory* (Smith 2018, xxi, 54). Darwin has misled researchers and society alike with his theories, especially those relating to sex (Fisher 1979; Tanner and Zihlman 1976; Tavris 1992, 212–215). Darwin recognized that sex selection was, in many ways, very different from natural selection. He acknowledged that many animals, especially birds, have an intrinsic sense of beauty. Thus, Darwin acknowledged that there exists more to sexual reproduction than just the three systems noted above. Specifically, sexual selection is an evolutionary force driven by what are actually somewhat arbitrary aesthetic choices in mates, rather than by the environmental imperatives that drive natural selection (Prum 2018).

## The Ubiquitous Sexual Reproduction Problem

With a few exceptions, such as bdelloid rotifers, most animals and plants can reproduce by some form of sexual behavior. Furthermore, the gonads employed in the animal kingdom for sexual relations, although enormously different, function for one purpose only, to transfer the male seed to fertilize the female egg. Plants use a very different transfer

system than mammals, usually requiring wind, water, or insects to accomplish seed transfer. Many prokaryotes also participate in gene transfer. The assumption that asexual reproduction is “simple” is erroneous: “even the simplest bacterial chromosomal sexual process is, from a biochemical point of view, not at all simple” (Margulis and Sagan 1986, 36). The evolution of asexual reproduction has, likewise, stymied evolutionists, but that is the subject of another paper.

Evolutionists are faced with the problem of the evolution of the mechanics of sexual reproduction not only in humans, but in thousands of different life-forms. Plants, worms, birds, reptiles, and mammals all use very different sexual systems. For “any one of them to exist, the mechanics of sex had to be fully in place—all at the same time” (Smith 2018, 165). The extent of the problem for evolutionists is illustrated by the fact that, without sexual plants, herbivores such as cows and sheep could not survive. Likewise, without herbivore animals, such as antelopes, carnivores such as lions and tigers could not survive.

Ridley argues that in many ways asexual reproduction is a superior evolutionary strategy. Only one parent is required, and every one of that parent’s genes are passed on to its progeny. By contrast, in sexual reproduction, only half of each parent’s genes are passed to the next generation. Furthermore, a mate must be found and mating must occur at very specific times. Yet sexual reproduction persists (Ridley 1993a).

Sex is not just critical for individual life-forms, but for the entire web of life we call the ecosystem. Evolutionary theory postulates that asexual reproduction, after many millions of years, evolved into the scores of sexual reproduction systems existing today. The enormous gap between asexual reproduction and any one of them has not and, as we will show, cannot be bridged by evolution.

Furthermore, the variety of reproductive systems existing even in large classes of reptiles, fish, amphibians, mammals, and especially in insects, is enormous. Furthermore, all male-female organs must be compatible within each species for reproduction to occur. The focus in this paper is on the specific reproductive organ system used in mammals, primarily humans.

### **Darwin Gave Up Attempting to Answer the Origin-of-Sex Problem**

The “Sex Problem” elucidates Darwin’s famous challenge, which was: “If it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down” (Darwin 1859, 225). In describing the

evolutionary path that produced sexuality, Darwin’s early grappling with the origin-of-sex problem caused him to conclude that asexual life evolved into sexual life. Early in his career, however, Darwin recognized some of the many problems with this view, and grappled with using the hermaphroditism view—the presence of both male and female reproductive organs in one individual—as a possible answer (Ghiselin 1965). In his 1837–1838 notes, when attempting to explain some of the many physical differences between males and females, Darwin wrote,

almost all animals subject to Hermaphroditism,—those organs which perform nearly the same function in both sexes, are never double, only modified, [versions of] those which perform very different [functions], are both present in every shade of perfection.—How comes its nipples though abortive, are so plain in man, and yet no trace of abortive womb, or ovarium,—or testicles in female.—the presence of both testes & ovaries in Hermaphrodite—but not of penis & clitoris, shows to my mind, that both are present in every animal, but unequally developed. (quoted in de Beer 1960, 298–299)

Aside from this early musing, “Darwin never attempted to explain the origin of sex. Why should he bother? Nature was absolutely saturated with sex” (Smith 2018, 169). Darwin likely realized he could not even produce logical speculations that explained the origin of sex. For this reason he almost totally ignored the topic. In his *Descent of Man*, Darwin covered sexual variation, sexual adaptation, sexual attraction, and sexual selection, but never mentioned how sex might have, or even could have, evolved (Smith 2018, 145). Nonetheless, the insights of Darwin “which have illuminated so many mysteries, have so far failed to shed more than a dim and wavering light on the central mystery of sexuality” (Bell 1982, 19).

The problem for Darwin and his followers was that “Bacterial sexuality is very different from the meiotic sex of protists, fungi, plants, and animals.” So different, in fact, that bridging the two has proved impossible, even in theory (Margulis and Sagan 1986, 3). Margulis concluded that sex did not evolve because it was a superior means of reproduction—as most evolutionists claim. Rather, “ultimately males and females are different from each other not because sexual species are better equipped to handle the contingencies of a dynamically changing environment, but because of a series of historical accidents that took place” (Margulis and Sagan 1986, 3).

### **A Complex Integrated System Required**

Sexual reproduction does not involve one or two organs, but numerous *organ systems* that must

all work harmoniously together. This includes the gonads, the female womb and birth canal, the secondary sexual traits (e.g., beard in males, breasts in females), the brain which responds to sexual stimuli, and the genes that produce and regulate the many parts of the entire complex reproductive system. Without all of these required parts, the system will not function and the organism cannot reproduce.

This problem perfectly illustrates Darwin's dilemma, namely the question first posed by St. George Mivart in 1871, "What use is half a wing?" The fact is, half of a bird's pair of wings would be worse than useless because it would greatly interfere with the organism's land travel and waste body resources and nutrients (Smith 2018, 48–50; also Gould 1985). Because of this dilemma, evolutionists almost uniformly ignore the problem of the evolution of sex.

Zimmer and Emlen even admitted in their popular textbook that "Given the functional uniqueness of sexual reproduction at even the most primitive level, what we will see over and over throughout this book is that such an assumed gradual process could not, in actual scientific fact, have happened" (Smith 2018, 81). But, according to evolutionists, it *must* have happened and required a large number of mutations called "replicator substitutions." Dawkins wrote: "sexual reproduction is a prime example of a complex adaptation for [which] a large number of replicator [genetic] substitutions would be required" (1982, 106).

### Mitosis Evolves into Meiosis

Sexual reproduction requires meiosis, which produces haploid cells containing half the normal number of chromosomes for the organism. In humans, this means a haploid cell has 23 of the normally 46 chromosomes. Evolutionists propose that after eons of genetic mutations, mitosis evolved into meiosis (Smith 2018). This is problematic because major differences exist between meiosis and mitosis (Wilkins and Holliday 2009). The evolution of meiosis from mitosis is untenable for reasons similar to the "half-of-a-wing" dilemma. In short, mitosis is closer to a glorified copy machine while, in contrast, meiosis is a functional creator that produces the potential for the enormous variety seen everywhere in most all life-forms existing today (Smith 2018, 94). Furthermore, for meiosis to exist, transposition, imprinting, epigenetics, genetic crossing over, the topoisomerase mechanism, and numerous other complex systems must have also evolved, and been available for use simultaneously. However, none of these have been explained by evolution, even by "just-so" stories.

### Evolution from External to Internal Fertilization

A major gap in the evolution of sexual reproduction is from *external* fertilization to *internal* fertilization. External fertilization involves male sperm fertilizing a female-produced egg *outside* of the female's body. This typically occurs in water or moist areas to facilitate the movement of the male sperm to the location of the female egg. In water, males and females must release gametes at similar times and locations in order to fertilize the eggs. This problem is reduced by females building nests in which to lay the eggs, but requires programming males to deposit their sperm into the nests at a particular time and location (Smith 2018, 53).

Internal fertilization involves sperm being introduced, via insemination, that will combine with an egg *inside* the female's body, but only if conditions are right. Evolutionary theory proposes that when life moved from the sea to the land, this transition forced the evolution of internal fertilization to prevent desiccation. Desiccation would have been a major problem in the external fertilization system.

However, change from external fertilization to internal fertilization produced a major evolutionary gap between two very different reproduction systems. Closure of this gap has not been documented by evolutionists in the past 150 years, even by plausible "just-so" stories (Smith 2018, 53). The supposition that external fertilization evolved into internal fertilization has also been challenged. Scientists long ago arrived at the

conclusion that internal fertilization could only have arisen from its willy-nilly counterpart external fertilization, and never the other way around. However, a new study by Long et al. published in the journal *Nature*...show[s] that external fertilization may have evolved from internal fertilization in the most recent common ancestor of the placoderms, ancient progenitors to, among others, bony fish, birds, reptiles, amphibians, author, and reader. (Gamal 2014)

As is typical with much research on the origin of sex, the speculative *Nature* article was based on slim evidence. Specifically, the discovery of clasper morphology found on what is considered an ancestor of the placoderms, resembles that of ptyctodonts (an order of extinct armored fishes belonging to the Placoderm class). This suggested that internal fertilization originally characterized all placoderms. Placoderms are an extinct fish whose front body section is encased in broad, flat bony plates. This "implies that external fertilization and spawning, which characterize most extant aquatic gnathostomes, [jawed vertebrates], must be derived from internal fertilization, even though this transformation has been thought implausible" (Long et al. 2015).

Most fish species that spawn eggs are fertilized externally, typically with the female laying the eggs and then the male inseminating them. Exceptions include the cartilaginous fish, including sharks, skates, rays, and chimaeras. In cartilaginous fish, eggs are fertilized internally, although they exhibit a wide variety of both internal and external embryonic development.

Thus, the most logical water-to-land evolution would be from some cartilaginous fish to some reptile, an evolutionary route largely rejected because of the enormous differences between cartilaginous fish and reptiles. The most widely accepted evolutionary path from external to internal fertilization is from *amphibians* to reptiles, a path also separated by an anatomical chasm (Denton 1986, 218).

The sexual reproductive system involves not just compatible copulatory organs evolving *simultaneously* in both the male and female of a pair, but an effective system that supports the embryo while it is developing. This system must enable its birth, feeding, and care until it is ready to live on its own. For amphibians to evolve into reptiles, as evolution postulates, all of these changes must have first evolved **in water** to allow the new organism to survive. It would not have been able to live on dry land until it was able to survive and successfully reproduce on land (Smith 2018, 54–55). No one has been able to explain how this transition from water reproduction to land reproduction could have occurred.

### Amniotic Evolution

Also required for internal fertilization to evolve from water to land is the amniotic system that most evolutionists postulate evolved from the amphibian reproductive system (Reisz 1997). The amniotic egg is the system produced by reptiles, birds, and prototherian (egg-laying) mammals (Smith 2018, 54). Amniotic eggs enabled animals to live on dry land without the requirement that they return to the water to reproduce, as required by amphibians. This type of reproductive system “is vastly more complex and utterly different to that of an amphibian. There are hardly two eggs in the whole animal kingdom which differ more fundamentally” (Denton 1986, 218).

In placental mammals, the embryo develops inside an amniotic sac filled with amniotic fluid which, in turn, is connected to a placenta. The placenta is an enormously complex system that interfaces between the mother and child. It provides oxygen and nutrients to the fetus, while removing carbon dioxide, urine, and numerous other waste products from it. The placenta also metabolizes a wide variety of substances and releases numerous metabolic

products into the maternal and/or fetal circulation to be removed by the mother’s kidneys.

The evolution from a non-amniotic egg to an amniotic system, although widely assumed to have occurred, has never been documented in the fossil record, not only because soft tissue fossilizes poorly, but because it faces the same problem documented for the evolution of sex, namely that a new reproductive system will not allow for survival until the hundreds of required changes are each complete to achieve a fully functional level (Gauthier, Kluge, and Rowe 1988).

### Estrus Cycles Harmony Required

Achieving the harmony of estrus cycles—the narrow window of time when animals are able to mate, (called being “in heat”)—is another evolutionary problem. Estrus cycles vary greatly as to season, length, and how many times annually sexual readiness occurs. Most animals are monoestrous, (having one estrous cycle per breeding season), or dioestrous, (having two estrous cycles in one breeding season), while a few, such as humans, are polyestrous (having many estrus cycles within an entire year) (Smith 2018, 61–62). In fact, humans are the only species that are sexually active year round. In all cases, the males and females must be on, or very close, to the same mating cycle for successful mating to occur. Some animals, such as the giant panda, are fertile on only one day for an entire year.

### Sexual Dimorphism

Another chasm between asexual and sexual life is *sexual dimorphism*—where the sexes’ external morphology varies, allowing animals to effectively differentiate males from females of their own species by external physical traits. Their behavior must also fit their sexual role. Females usually nurture, protect, and rear their offspring.

In contrast, males must support, protect, and defend their mate and offspring. Not surprisingly, the evolution of sexual dimorphism is another difficult problem for evolution. In other words, “how does sexual reproduction lead to distinctly different sexes, such as the males and females?” (Gray and Garcia 2016, 4).

Some sexual life-forms are sexually dimorphic, while others are not morphologically different except for the gonads, such as the case of the famously misidentified sex of house cats. Others, such as sequential hermaphrodites, “can change from male to female during their lives” (Gray and Garcia 2016, 4–5). Actually, humans display more sexual dimorphism than most mammals and reptiles. Darwin attempted to explain this fact by sexual selection, but others believe it is better explained by

ecological factors (Shine 1989). Stanford University Professor Joan Roughgarden even argued that, in general, “Darwin was wrong about sexual selection” (2004).

Even in the area of sex roles, many different patterns exist—except the birthing role. One rare example where the birthing role is reversed is with seahorses, where males both birth and nurture offspring. Certain fish can switch gender, preserving the fish species if an unbalance in complementary sex roles exists. Note the critical factor is that both the male and female physical and social roles must be compatible with the requirements to rear offspring. Usually the female nurtures the young, but in a few cases her mate does, or the young are born not requiring parental support because they are able to live on their own soon after birth. An example of this is sea turtles who lay their eggs in the sand and then leave, never to return to care for their progeny.

### Sperm-Egg Compatibility

The sperm must be designed to fertilize the egg of its own species. For this reason, all known chimp and human interbreeding attempts have failed (Bergman 2017, 219–236). In most cases, we do not know why cross fertilization fails, partly because geneticists have not done the required research. One case we do understand in detail is an essential component of the multi-million-dollar dog breeding industry. Sperm head morphometry of domestic dogs displays significant differences in dog breeds (Soler et al. 2017, 151).

Dog sperm looks similar to human sperm, but unlike the human version, dog sperm has a thick sugar-cholesterol complex that covers the sperm head where the DNA is located (Khan et al. 2017). When sperm travels through a female dog’s uterus, a chemical cocktail within the uterus, which must include magnesium, effectively breaks down the coating.

If the coating remains intact, the dog sperm’s DNA is unable to fertilize the egg—as would be the case in all animals that are unable to break down the complex sperm barrier. Furthermore, the same batch of chemicals in the female fallopian tube also causes the sperm to wiggle its tail. The sperm’s tail then functions as a propeller to cause it to swim faster and help it to burrow into the egg to deposit its DNA.

A complex set of interactions are normally required to enable the sperm to penetrate the various egg barriers and fertilize the egg. When reaching the egg, the sperm of many species encounters the “zona pellucida, a thick jacket of sugars that only sperm cells have the right biochemical tools to grab hold of” to fertilize the egg (Bennett 2019). When approaching a host egg cell, the sperm encounters

a maze of surface bio-molecules, including complex branches of sugars connected to the cell membrane by protein trunks. To penetrate the cell, the sperm must have a “grip” shape matching the branches on the egg which function as “handholds”. Specifically, the protein structures that latch onto the cell’s surface sugars are called *lectins*, which use internal cavities to fit snugly around specific sugars on the egg. In mammals, the sperm and egg genomes are imprinted to be compatible, and without this compatibility fertilization cannot occur.

### The Problem of Gender Evolution

The long parts list required for sexual reproduction to function includes the sex organs both on the outside as well as those on the inside of the body. Besides compatible gonads, male and female behavioral and physical differences and compatibility are required for reproduction. “Gender” encompasses the fact that males and females consist of more than gonad differences, but also numerous anatomical, hormonal, and personality differences.

The universal historical view was there exist only “two genders throughout the plant and animal kingdom” (Smith 2018, 28). This is the view of gender taught in Genesis, “God created them male and female,” which has now been challenged by the so-called “progressive” culture. They argue that as many as 112 genders exist, including bisexual, asexual, homosexual, transsexual (a male body and a female gender, or a female body and a male gender) and questioners (the condition that exists when one is not sure of one’s gender) (Dude 2021). In contrast to the many genders advocated by social progressives, gender is tightly correlated to sex and the two terms have historically been used interchangeably. Professor Graham Bell has observed that every

student knows that homologous chromosomes usually segregate randomly during the division of the nucleus; no professor knows why. Every layman knows that all the familiar animals and plants have two sexes, but never more; few scientists have thought to ask, and none have succeeded in understanding, why there should not often be three or many sexes, as there are in some ciliates and fungi (Bell 1982, 19).

While there are only two genders in mammals, gender divisions are more complex in some life forms, such as in a few insects, including bees which have three “genders”: drones, workers, and queens (Smith 2018, 99, 164). The evolution of insects’ sexual organs appears to be a complete mystery (Smith 2018, 100–102). The enormous variety of insect sexual organs includes some that are so distinct that they are not homologous with any other known organ in the insect world. Although not covered here, this topic deserves a separate paper.

Other animals can be both sexual and parthenogenetic. Parthenogenesis is a form of asexual reproduction in which growth and development of embryos occurs without fertilization by a male gamete, such as occurs in earthworms, aphids, hydras, and sponges (Smith 2018, 99–100, 118). Some life-forms, like yeast, can reproduce asexually by budding or fission, or can form haploid spores that eventually fuse with other spores to form a diploid zygote, as occurs in sexual reproduction. These exceptions only complicate the evolutionary claims, and do not add to, or support, claims for the evolution of sex, which remains “one of the most enduring mysteries of biology” (Ridley 1993a, 36). Indeed, these examples illustrate the maxim that a sexual system is worse than useless until it has developed to the point where it effectively functions (Smith 2018, 201–230). Sexual reproduction must be successful in the first generation for there to be another generation, although once this mode of reproduction is successful it can, in theory, be fine-tuned during future generations. In short, “no generation can pass on any slight evolutionary advantages to the next generation if it can’t yet” reproduce (Smith 2018, 22).

### Sexual Organ Design Compatibility

Another critical concern is that the design of sexual organs and cellular mechanisms limits sexual reproduction of a species to members of the same species, as we saw with dogs. The evolution of the mammal organ reproductive system is an enormous challenge to evolution—a topic rarely broached in the academic evolutionary literature. Some of the main parts of the male human reproductive system are, in turn, composed of numerous complex parts, and all, functioning as a unit, are required for reproduction. The systems listed below are not simply analogous to a single gear in a transmission, so to speak, but rather each system is an entire unit more like a complete automobile transmission. Furthermore, both the male and female systems must function together as one system before sexual reproduction is possible. Some of these separate systems are listed below.

### Male Human Reproductive Organs and Their Function

**Testes:** house the *seminiferous tubules* which produce sperm (**spermatogenesis**).

**Scrotum:** surrounds the testes, its *cremaster muscle* regulates their temperature.

**Epididymis:** transports, stores, and brings the sperm that is produced in the *testes* to maturity.

**Vas Deferens:** transports mature sperm to the urethra tube that carries urine or sperm outside the body.

**Seminal Vesicles:** produce and store fluid that eventually becomes semen. The smooth muscle layer contracts, releasing *seminal vesicle fluid* into the ejaculatory duct. Semen consists of sugar (mainly fructose), proteins, citric acid, inorganic phosphorus, potassium, and prostaglandins.

**Prostate gland:** secretes *prostate fluid*, a component of semen. The muscles of the prostate gland help propel seminal fluid into the *urethra* during ejaculation. Prostate fluid contains high levels of zinc.

**Bulbourethral glands:** located beneath the *prostate gland*; add fluids to semen during ejaculation.

**Glans Penis:** the distal end (tip) of the penis, the anterior end of which is covered by foreskin; the shaft parts include the *corpus cavernosum* and the *urethra*.

In addition to these organs are many arteries, capillaries, ligaments, epithelial tissues, and cartilage.

### Female Human Reproductive Organs and Their Function

**Ovary:** small, oval-shaped glands located on both sides of the uterus that produce eggs and several female hormones.

**Fallopian Tubes:** narrow tubes attached to the upper part of the uterus. They serve as tunnels for the *ova* (egg cells) to travel from the ovaries to the uterus. Fertilization normally occurs here.

**Uterus:** a hollow, pear-shaped muscular organ that is the home of the developing fetus. Its three main layers are 1) *the endometrium* (the inner epithelial layer, along with its mucous membrane); 2) *the myometrium* is the middle layer, consisting mainly of uterine smooth muscle cells, but also supporting stromal and vascular tissue. Its main function is to produce uterine contractions to deliver the baby. Lastly, 3) *the perimetrium* covers the body of the uterus and part of the cervix.

**Clitoris:** very sensitive to stimulation, and functions similarly to the penis as a point of sexual response.

**Labia Majora:** enclose and protect the external reproductive organs.

**Labia Minora:** lie just inside the labia majora. They surround and protect the openings to the vagina.

**Bartholin’s glands:** located beside the vaginal opening and produce a fluid (mucus) secretion.

**Cervix:** a diaphragm that protects the uterus but has a narrow opening (the *external os*) to allow the flow of menstrual blood from the uterus and to direct sperm into the uterus during intercourse. It is dilated during delivery to about 10cm.

**Vagina:** the birth canal. It joins the cervix to the outside of the body.

**Hymen:** a thin, half-moon-shaped membrane that surrounds the opening to the *vagina* to allow

menstrual blood to flow from the vagina. It protects the uterus from bacteria and parasites.

In addition to these organs are many arteries, capillaries, ligaments, epithelial tissues, and cartilage.

Additionally, the various body organs produce reproductive hormones, (including the follicle-stimulating hormone and luteinizing hormone), that travel in the blood to the ovaries to stimulate the growth of about 15 to 20 eggs in the ovaries, each in its own shell called a *follicle*.

Aside from a few comparisons, such as noting that the urethra exists in both the male and female, I found nothing in the literature that documents how these very different organs could have evolved. Darwin was also baffled and made comparisons based on the assumption that hermaphrodites were the transitional prototype of sexual creatures. However, they show no evidence of evolving, and in many ways utilize the best of both systems of reproduction, asexual and sexual. One could argue that natural selection would favor this reproductive method and therefore it would be common in all life-forms.

### The “Evolution” of the “Sexual Reproduction Problem” Refutes Evolution

A detailed PhD thesis titled “Darwinian Attempts to Explain Sexual Reproduction and “The Queen of Evolutionary Problems”” concluded that

natural selection would be refuted if living beings are found to contain organs which could not have been formed gradually, which is a necessary condition for it to have been formed through an evolutionary process of adaptation through natural or sexual selection....the existence of such an organ would imply the falsification of that theory...the fact that sexual reproduction cannot be explained by the theory of natural selection implies that sexual reproduction is a falsification in the form described above and is,...a phenomenon that is fatal to the theory of natural selection (van Rossum 2014, 111, 138, 141).

Interestingly, Gould, like Darwin, in his history of the evolution of life, does not even attempt to answer the crucial question in evolutionary theory; namely how and why the systems and organs listed above could have evolved, (and neither has anyone else). Sexual evolution has no source of genetic variety besides mutations and, consequently, cannot occur until a source of variety exists (Gould 1989, 60). Mutations cannot function as a source of variety because the vast majority of mutations are near-neutral, and thus accumulate until genetic catastrophe occurs, or they are deleterious (Ridley 1993a, 38). One would assume that after 150 years this central question would have been answered.

Thus, *evolution is actually not a theory, but rather only an idea*. Gould admits that evolution deals with the fundamental issues of life—as does religion. It attempts to answer the questions of what our life means, why we are here, where we came from, and who we are related to. Thus, as Professor Ruse documents, *evolution is a type of religion* (2016).

### Conclusions

Darwinists are no closer to solving the origin-of-sex problem today than they were in Darwin’s day. The advantages of sexual reproduction are well-known, and include the production of enormous genetic variety compared to asexual reproduction. The most popular theory for the origin of sex as of this writing is the “Red Queen theory”, which explains that sex evolved to constantly adapt to, and thus survive the “ever-evolving” human pathogens (Ridley 1993b). The Red Queen analogy is from Lewis Carroll’s novel *Alice’s Adventures in Wonderland*. As she has to run just to stay in the same place, likewise evolution has to keep moving just to maintain the ability to reproduce.

Theory aside, sexual reproduction is almost universal in the higher plant and animal world, even if evolution cannot explain it in Darwinian terms. This serious gap in evolution was largely ignored by Darwin, and by most evolutionists today, because they have not been able to propose even plausible “just-so” stories to explain the evolution of sex. Like many difficult evolutionary questions, the best strategy is to ignore the entire problem, which is what evolutionists have done. All life, evolutionists teach, was asexual for eons. The common attempt is to state that sexual life evolved from asexual life, but sex will not work until two complex systems in the two sexes are compatible. The problem of how reproduction occurred before both systems were evolved concurrently has never been answered.

The peer-reviewed literature effectively documents the fact that the evolution of sexual reproduction is a major unsolved, and *unsolvable*, problem for evolution. The former editor of *Nature*, John Maddox, writing about the question of when and how sexual reproduction evolved, stated that “Despite decades of speculation, we do not know” how sexual reproduction evolved (Maddox 1998, 252). This classic study of the origins of sex concluded, “how or why sex [evolved] is a deep mystery” (Judson 2002). As Professor van Rossum has concluded, “a salient characteristic of living beings, sexual reproduction, defies Darwinism, and [is] not based on an improbability, but on an impossibility of explanation” (van Rossum 2014, back cover). The fact is, evolutionists admit that they are perplexed about the whole question of sex (Eckholm 1986, Section C, 1).

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