

IT'S ALL CONNECTED

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presented by



Nature is Full of Pride

It is in our nature to process the world from our own perspective and difficult to assess communication between other species to determine what level of sentience, smarts, and feelings they have. The forms of communication and interaction among and between species is varied and has evolved over millennia. Though we humans have exceptional intelligence, many species remain beyond our understanding and will

remain so. Perhaps that is why nature is so beautiful and a magnet for us...it belies our full grasp and therefore we desire to make that deeper connection.

Another magnificent realization about other species with whom we share the planet is their lifestyles which defy binary stereotypes. Ok, we did miss June pride month by a few days, but let's explore how nature is queer and maybe embrace the truth that some of our fellow humans also defy binary labels.

Nature engages in orgies, cloning, homosexual behavior, gender transformation, parthenogenesis, and contains plenty of hermaphrodites. The fluidity of nature is not an odd or rare occurrence. In fact, [homosexual behavior has been observed in over 1,500 species](#), including penguins, swans, bonobos, fruit flies, kestrels, beetles, garter snakes, lions, orcas, cattle, koalas, albatrosses, giraffes, pandas, tortoises, dolphins, chickens, geckos, salmon, lizards, and even butterflies. Our closest relatives in the animal kingdom, monkeys and apes, engage in quite a lot of nonbinary sexual activity. Perhaps rethinking sexual labeling is a good start because the rest of nature doesn't label themselves, they just do what works for them.

Much of nature does not fit the Western cultural categorizations of reproduction, sexuality, or gender presentation. Adopting the thinking of queer ecology challenges us to reevaluate traditional notions of nature. Let's look a little deeper because the ocean is full of sexual fluidity in nature, for example:



- Some moray eels are protogynous hermaphrodites that change sex from female to male, while others are protandrous hermaphrodites that change sex from male to female.
- Seahorses and Seadragons are the only species that get pregnant and give live birth
- The lion's mane nudibranch (*Melibe leonina*) looks a bit like a jellyfish, but it is actually a nudibranch (a sea slug). These *Melibe* are hermaphrodites (they have both male and female sexual organs), and fertilization is internal.
- The Blackeye Goby (*Rhinogobios nicholsii*) is also a protogynous hermaphrodite. They are very territorial, as males must guard all the eggs until they hatch.
- Parrotfish, and other wrasses, will change gender from female to male when the population numbers make it advantageous.
- Clownfish also change sex
- Sea Hares are hermaphroditic and will seek out mates or even form a chain of individuals to exchange sperm for reproduction.
- Aggregating anemones may reproduce by spawning as well as asexual division forming clonal colonies among the rocks.

Among terrestrial species, hermaphrodites may also be found, especially among snails and worms. When we look at flora, the number of hermaphroditic species truly blossoms with a whopping about 90% of flowering plants that produce bisexual flowers, with both male and female reproductive organs. Fun fact: Matilija poppies can reproduce asexually by cloning themselves, as well as bisexually.

A gynandromorph is any organism that contains both male and female characteristics. Gynandromorphy may be found in birds, some species of insects, crustaceans, and snakes. Look at this stunning [cardinal that is half male and half female](#). Parthenogenesis has been observed among insects such as ants, bees, aphids, and wasps, and rarely, in higher vertebrates. However, in 2020, a Komodo dragon at the [Denver Zoo](#) hatched two babies on her own through asexual reproduction (parthenogenesis).

Did you know that the world's [oldest tortoise, Jonathan](#), is also gay!

These are just some examples of the unique individuals and behaviors found on Earth. It seems apparent that queerness is not an anomaly but a natural way of living.

Don't Bug Me

The topic of insects brings up many reactions. No matter how you feel about them, we need to make our outdoor spaces more insect friendly. Insects are a vital part of the food chain and without them our world shrinks greatly. Did you know that songbird nestlings eat only insects as they fledge? **Hundreds per day!**



You've probably heard about declining bird populations, which turn out to be closely tied to plummeting insect populations. Birds that are insectivores (species that only eat insects at all life stages), such as swallows and flycatchers, are the most susceptible because of the declining insect populations. Thankfully, there are things you can do to help. Start by using your yard to create a native plant habitat which attracts insects and birds.

Once you establish a healthy outdoor space, these creatures will move in and you'll **have more nature right outside your door**. Take it one step further and make your space a [certified Wildlife Habitat](#). Check out these easy and helpful [yard and bird friendly tips](#).

Quick Connections

Books, websites, documentaries, podcasts, events, quotes, and more



[The Waste Makers](#) by Vance Packard written over 60 years ago looked at the rise of consumerism and manipulation by corporations.



We have only one Earth and this short video is a strong reminder of our responsibility to protect it. Watch [Plastik](#) now.



Quote we're pondering

"The lives of most Americans have become so intermeshed with acts of consumption that they tend to gain their feelings of significance in life from these acts of consumption rather than from their meditations, achievements, inquiries, personal worth, and service to others." - **Vance Packard**



Scientific Exploration

Dr. Jann Vendetti, Curator of Malacology at Natural History Museum of Los Angeles, recently went on a deep sea expedition. Her [blog posts and fantastic pictures](#) from the research expedition are a worthwhile read (read from the bottom up).

Community Connections

We want to connect with you.

In response to our question last month, subscriber Cemone shared the reminder that "Nature bats last." We agree, Mother Nature is always right and hits 1,000. How else can we impart knowledge to others and help them move forward on their sustainable journey?

We read each and every response and will share selected reader stories in upcoming newsletters.

Your feedback is important. [Tell us](#) how we are doing and what you would like to see covered in future newsletters.

Every connection counts! Please help grow our community of everyday heroes by sharing this newsletter with a friend or colleague.

Thank you,

Laura Schare, Editor

Michael Hawk, Founder

Jumpstart Nature

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