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FYS-110

15 November 2023

Skate Egg Cases: Connection through the Tapestry of Myth & Folklore

When you look at these skate egg cases, you see community. My grandmother has always been one connected to nature. She loves bragging about her yard with her hundreds of flower varieties and all the little critters that they attract. One of her favorite animals that comes to her yard is the swallowtail butterfly. Dazzling yellow wings, a large size, and captivating flight patterns; it's no wonder why she loves them so much. She always tells me when these swallowtails come by that they are her mother; that her spirit itself is contained in the essence of these insects that visit her home daily. I remember my great grandmother, and she loved butterflies, so much so that my grandma assigned her own folklore and mythology of them to maintain some sort of connection with her mom, even after her death. This folkloric ideal we assign to places, objects, and biology is ever present in the world today. These skate egg cases portray their own mythology of the sea; it is through the communal efforts of reproduction by skates that we can build folklore around the ocean, and through that framework, build our own connections as well.

Skates are fish that reproduce through community efforts. Skates are morphologically similar to a stingray; a long tail, wide “wings” on the side of the body, a flat shape, and eyes on the top of their heads. They are closely related to sharks and are found in nearly every oceanic environment on the planet (“Skate”). Both sharks and skates, along with chimaeras reproduce by egg cases, also known as a mermaid’s purse; a leathery pouch that surrounds the embryo laid by these animals (“Egg case (Chondrichthyes)”). Specific skate species have different “hotspots” for

reproduction, called nurseries. For example, the Alaskan skate, a predominantly Asian species, has a dedicated spawning ground near the Gamov peninsula on the Eastern edge of Russia. Researchers trawled this area for thirty minutes and estimated that the density of eggs in this area was around 190,000 egg cases per square kilometer; a massive amount! In addition, they found that this nursery area had both new and old, as well as decaying, egg cases, proving that this spawning ground has been utilized by the Alaskan skate for a long period of time (Panchenko). Other species of skate do this as well; another team of researchers investigated a two-species nursery ground of Mud and Okhotsk skates near the Kamchatka peninsula in Russia. Not only did they conclude that this site had been utilized for years by these species, but they also found that there were substantial amounts of skates here as well: one trawl recorded 6044 mud skates and 28599 Okhotsk skates per square kilometer (Balanov). In short, numerous skate species form a community with reproduction as the focus through these nursery grounds.

Skates have the potential to become two things: washed-up, or a basis for folklore. These egg cases were probably washed ashore in what is coined as “unknown egg mortality.” This is common in skates, as their cases have very limited ability to stay deposited on the loose, gravelly bottoms of their nurseries, and since they don’t have holes and aren’t cracked open, we can rule out predation as well (Smith). However, had these egg cases been allowed to develop to maturity, they could have developed into something folkloric, like the generations that came before them had. Horace Beck, a sailor and folklorist, discussed the different mythologies of the ocean and how they come about in his book, *Folklore and the Sea*. Beck provides analysis that most modern folktales of the seas come from three main factors: an unusual creature, poor visibility, and exhaustion (Beck, 257-258). Basically, anything that wasn’t a fish was translated as some sort of mythological creature. Skates could have been part of this; they definitely look

unusual and scary to those who haven't seen them before. However, I think the far more likely scenario of the basis and evidence for a chunk of oceanographic folklore comes from the manipulation of these unusual creatures; a jenny haniver. Jenny hanivers are rays or skates that have been modified and mummified to represent mythological creatures. Some of the earliest zoological textbooks from the 16th and 17th centuries include dragons, basilisks, and mermaids that were made from these jenny hanivers (California Academy of Sciences). Two examples of mermaids are the legends of the monkfish and the bishop fish. The monkfish was described as a fish with a man's head that wailed out cries of distress in a Norwegian village, and the bishop fish was described as fish clothed like a bishop and having a pontifical miter on his head (Gudger). Research indicates that jenny hanivers or angel sharks were likely the basis for these legends. In addition, basilisks and dragons were supported by jenny hanivers; the cutting, snipping, and manipulation of a skate's body can create a convincing picture of these creatures (Gudger). Their wings can be trimmed and reattached; their "face" can be manipulated into being vicious and reptilian; their tails can become strangely dracular; the point being is that jenny hanivers provided the "proof" for a lot of popular myths that we see today.

Sea-based folklore is a great connector among societies. Beck elaborates on this idea in his book. Sea creatures appear to be a cultural universal: something that every culture has. Eastern Asia, India, Africa, Greece, Scandinavia, and Native Americans all have their own folklore tales related to the ocean (Beck, 256). Research seems to indicate that these ideas gained traction in the East and then spread through Europe, with the possibility of northern Europe having its own developmental timeline and independent mythos (Beck, 256). In fact, Beck thinks our explanations for the unknown go back farther than we can imagine. Beck states, "[sea monsters] are really the frayed strands of a tapestry of mythology far greater than we presently

recognize - a tapestry that may have been old in Megalithic times” (Beck, 256). Folklore is something that we can all understand and build connections with; it is something a vast majority of cultures have done.

Because of this community that skates create to reproduce, we are able to create our own communities based around this folkloric quality that skates provide through jenny hanivers and the unknown. Without skates, we lose the ability and evidence to discuss these mythological ideas for what they are: a group of people’s attempts to explain something that they don’t know. And these myths are not a thing of the ancient world; people report seeing mermaids, dragons, and other mythological creatures to this day. Even outside of the sea, things such as aliens, yetis, vampires, and other myths are still very much in the collective consciousness and connection; just look at my grandmother and her butterflies. If we did not have or lose skates in the future due to climate change related issues, such as increasing ocean temperatures, pollution, and ocean acidification, we would be left without the basis for mythology. We are left with one less piece that can tie us together. When you look at a skate, you see community; not just the communal breeding that these species take part in, but the community of humans that rally around the unknown and attempt to explain it through what they do know, giving rise to the fantastic myths that interweave our lives and communities into that shared tapestry of mythology and folklore.

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