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Susanne Schmitt

Care, Gender, and Survival: The Curious Case of the Seahorse

Seahorses make for good stories about care. As Donna Haraway so rightly puts it, part of caring about a being is to be curious about it, to position our self and ourselves towards it in a motion of attentiveness, bewitchment, and willingness to know and learn, and, finally, to “enter into responsibility” for its wellbeing.¹ And people are curious about seahorses. This is in no small part because seahorses have very specific ways of caring for their young. The stories that circulate about the Sygnathid family—seahorses and pipefish—are shaped and colored by how they organize care and by how this care is interwoven with gender: male seahorses become pregnant.

Within the ethics of care, there is a basic agreement that all beings receive and give care, that we are thus never truly autonomous, and that relations of attentiveness and responsibility entangle us in a range of emotions, very practical and political concerns, and concrete and often unacknowledged labor.² The practice, political context, and range of affects tied to care are also highly gendered. Not only is care often regarded as a human activity that is predominantly a parochial concern of women and part of life as a female member of the human species, but it is also highly morally charged as a form of “woman’s morality.”³ Care, construed as a female gift and a given, suggests that women are more suitable for certain endeavors and positions, such as nursing, childcare, or education, and less so for others. These activities, performed by women and discursively feminized—often regarded as a labor of love when wielded in personal contexts and often badly paid in public ones⁴—are foundational to the thriving and very survival of all forms of life, even across species. In the words of Maria Puig de la Bellacasa, “care is somehow unavoidable: although not all relations can be defined as caring, none could subsist without care.”⁵

1 Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 36.

2 Joan Tronto, *Moral Boundaries: A Political Argument for an Ethic of Care* (New York: Routledge, 1994).

3 *Ibid.*

4 Discussions of gender and care, which have recently gained renewed attention, are obviously highly contingent on historical and cultural contexts in relation to lifestyle, economy, and relationships. This essay is written with environmental organizations in mind which, operating globally, refer mostly to Anglo-American contexts and perspectives when storying care.

5 Maria Puig de la Bellacasa, “‘Nothing Comes without Its World’: Thinking with Care,” *Sociological Review* 60, no. 2 (2012): 198.

Storying life beyond humanity is one of many ways of becoming attentive, of the “art of noticing,” in Anna Tsing’s words. While all kinds of beings make sense of events—storying them—the stories some humans circulate about seahorses have very material and very concrete effects on their survival.

There are 36 different species of seahorses. They dwell in tropical and temperate shallow waters from coral reefs to seagrass beds, from Australia to the river Thames in England. They all belong to the Syngnathid family (genus *Hippocampus*) and are famously at odds with contemporary Anglo-American conceptions of pregnancy: males are in charge of it. Females deposit their eggs in the male’s pouch, who then carries the resulting two hundred or so small seahorses until birth, when he releases them through contractions into the open waters where they disperse to the plankton layers of the oceans. The biological characteristics of pregnancy in male seahorses resemble that of female mammals, providing an example of convergent evolution, where unrelated species find similar solutions to survival’s challenges. The male’s pouch, just like a kangaroo pouch, provides a protective and nutrient-rich environment in which calcium, lipids,⁶ oxygen, and the right salt balance⁷ are all provided to ensure normal embryonic development.

The stories that circulate about seahorses through biodiversity conservation efforts are scientific narratives made available to general audiences by conservationists who care about the seahorses’ survival. These stories are full of images—they can be found on websites or on seahorse tanks in public aquariums. They describe a male seahorse’s underbelly as a “caring” environment. How often do you see images of animals that are pregnant? How often do you see images of seahorses that are not? The thought of a pregnant women’s uterus as an interdependent, care-providing “ecosystem”⁸ that provides an ideal nurturing context, is indeed very much the rhetoric of contemporary Anglo-American notions of pregnancy. Stories about the seahorses’ ways of caring are prompted by such narratives and their subversion. In Eric Carle’s highly successful children’s book *Mister Seahorse*,⁹ for example, a seahorse father—obviously heterosexually married to a Mrs. Seahorse—takes on the eggs of Mrs. Seahorse after having asked her “Can I help?” and

6 Camilla Whittington, Oliver Griffith, Weihong Qi, Michael Thompson, and Anthony Wilson, “Seahorse Brood Pouch Transcriptome Reveals Common Genes Associated with Vertebrate Pregnancy,” *Molecular Biology and Evolution* 32, no. 24 (2015): 3114–31.

7 Joan Roughgarden, *Evolution’s Rainbow: Diversity, Gender, and Sexuality in Nature and People* (Berkeley: University of California Press, 2004), 45.

8 Barbara Duden, *Disembodying Women: Perspectives on Pregnancy and the Unborn* (Cambridge, MA: Harvard University Press, 1993), 2.

9 Eric Carles, *Mister Seahorse* (New York: Philomel Books, 2013).

subsequently travels the ocean floor, meeting other male fishes who care for their young intensively. Thus, it is not only evolution that converges but stories too, and they become important tools in the political armory of conservationists.

All species of *Hippocampus* are now threatened with extinction. The entire genus is protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),¹⁰ meaning that trading in any of these species is highly regulated; numbers are highly restricted and they need to be legally sourced. Seahorses are threatened by habitat destruction and overfishing, where they end up as bycatch. They are also an important remedy in traditional Chinese medicine: in another ironic twist of seahorse gender trouble, they are a highly sought-after cure for such ailments as impotence and urinary tract infections, as their dried bodies are claimed to stabilize male-connoted Yang in human bodies.¹¹ One of the main reasons for the disappearance of seahorses is thus the high demand that Asian markets, in particular, put on those who hunt and sell them.

Global networks of careful attention and concrete, practical labor of care are in place to make sure that the various species of seahorses can be kept in the world; they are an intertwined collection of conservation efforts taking place in natural habitats, aquarium-based breeding programs, and attention-generating storytelling that emphasize seahorses' very specific ways of taking care of their young, and their very peculiar outward appearances. Their unique form of offspring-care makes seahorses highly charismatic and thus binds them, by proxy for other species inhabiting the same ecosystems, into complex, transnationally operating care meshworks. Attention counts, curiosity is key, and "boring" stories make for "boring" species. Whenever humans tell stories—be they scientific, mythical, or colloquial—about other-than-human forms of life, a good story can be crucial for a happy ending for the genus or species as a whole. *Hippocampi* are considered iconic, enigmatic animals, not only due to the ways in which they act but also of course because of the way they look. They swim upright, have a curved neck, a snout, and tails that they curl around the nearest blade of seagrass. It is their "horsiness," their bridging of two seemingly incompatible worlds, that makes them stand out within their aquatic surroundings

10 All species of seahorse are listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), which calls for strict regulation of all trade in the species covered.

11 Irecê Lucena Rosa, Gabriela Rocha Defavari, Rômulo Romeu Nóbrega Alves, and Tacyana Pereira Ribeiro Oliveira, "Seahorses in Traditional Medicines: A Global Overview," in *Animals in Traditional Folk Medicine*, ed. Rômulo Romeu Nóbrega Alves and Irecê Lucena Rosa (Berlin/Heidelberg: Springer, 2013), 207–40.



Figure 1:
Two pregnant potbelly
seahorses at the Ten-
nessee Aquarium, USA.
Photograph by Joanne
Merriam (CC BY-SA 3.0).

and makes them special. On the ocean floor, so distant from our human environment, they resemble one of our most important companion species—the horse.

Because of their enigmatic exteriors, they have captivated humans and become a muse in meaning-making through transcendental stories; in Greek mythology, they pulled Poseidon’s chariot and they made appearances in Etruscan, Pictish, Australian Aboriginal, and Roman creative work.¹² They are also highly represented in both conservation databases and publicity events, precisely because their aesthetic power touches onlookers.¹³ They serve as boundary objects that enable different communities to converge around pressing political issues.¹⁴ They represent whole ecosys-

12 See Helen Scales, *Poseidon’s Steed: The Story of Sea Horses, from Myth to Reality* (New York: Gotham Books, 2009) for a thorough exploration.

13 Jamie Lorimer, “Nonhuman Charisma,” *Environment and Planning D: Society & Space* 25, no. 5 (2007): 911–32.

14 “Boundary objects”—and in this case, of course, boundary organisms—are phenomena that are “both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites.” Susan Star and James Griesemer, “Institutional Ecology, ‘Translations’ and Boundary Objects: Amateurs and Professionals in Berkeley’s Museum of Vertebrate Zoology, 1907–39,” *Social Studies of Science* 19, no. 3 (1989): 393. An example in which the mediating power of seahorses as boundary objects can be seen is Project Seahorse, a collaborative conservation project between the Zoological Society of London and the University of British Columbia. The project stresses the interdependencies of human (local communities, fishermen, trading companies) and seahorse lifeways, as both depend on healthy marine environments. Guylian Belgian Chocolate (famous for its marine-animal shaped chocolates) and the John G. Shedd Aquarium are major partners of the project, which reaches out to general audiences and local communities worldwide.

tems—mangrove forests, coral reefs, seagrass beds—and their survival ensures the further existence of the places and the multispecies communities in which they go about their lives. The hopes that are put on the survival of seahorses thus move beyond the genus itself. Not only have they come to represent certain ecosystems but they have also been identified as key animals for conservationists to use in trialing successful trade regulations for wild specimens. Project Seahorse, one of the main protagonists of seahorse conservation, describes them: “Charismatic symbols of the seagrasses, mangroves, reefs, and estuaries they call home, seahorses are flagship species for a wide range of marine conservation issues.”¹⁵

A world away from mangrove forests, coral reefs, or seagrass beds, at the Aquarium of the Zoological Society of London (ZSL), caring about seahorses is a strenuous and emotional undertaking. The ZSL is a hub of global seahorse conservation that has helped establish programs to ensure the survival of seahorses. Every morning, the

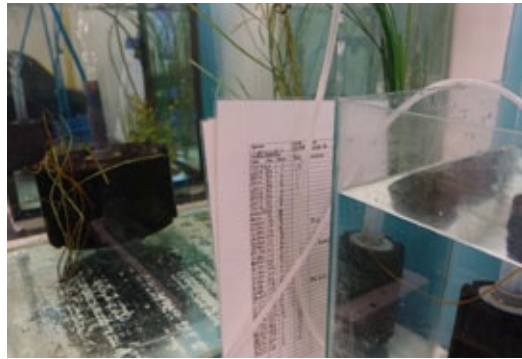


Figure 2:
Charting seahorse
growth at the London
Aquarium. Photograph
by author.

caretakers enter a hall behind the aquarium’s exhibits. This is where the short-snouted seahorse (*Hippocampus hippocampus*)—a native to the Mediterranean and more recently the British river Thames—is bred.

During my visit to London Zoo, their aquarium enclosures were being kept relatively cool. Short-snouted seahorses typically live in regions where the seasons are clearly demarcated, and providing them with different temperature levels throughout the year is part of the labor of breeding them and providing care for them.¹⁶ At the large show aquarium, the reverse of which is visible from the breeding area, visitors’ eyes slowly adapt to the vast variety of detail within. After a while, the seahorses become visible. Slow and tranquil, their tails curl around stems of seagrass, often together.

¹⁵ “Saving Seahorses: Flagship Species for Marine Conservation,” Project Seahorse, accessed 12 February 2016, <http://www.projectseahorse.org/seahorses/>.

¹⁶ The complexities and controversies surrounding care in captivity, although of course highly relevant, move beyond the short format of this contribution.

These seahorses live monogamously, and caring for them often implies engaging in life-long matchmaking. Choosing potential partners, introducing them, being curious and observing how they approach and respond to one another, matter as much as the mundane tasks like siphoning the tanks every morning.

Caring for seahorses at London Zoo is an emotional labor—these are the very words the caretakers use. The task is an ongoing one; a work of tinkering and being creative with a vast battery of technological aids and protocols that are necessary for keeping seahorses alive, thriving, and finally breeding in captivity: siphoning, filtration, heating, air conditioning, and the witches' brew of green microalgae and plankton that constantly boils in the food room, to name but a few. Blogging about new breakthroughs in the science of seahorse breeding or checking on the “geriatric tank” that holds a small colony of elderly specimens way past their breeding prime, or two baby seahorses with twisted backs that float adrift in their own little tanks—all these labors are acts of curiosity and intimate care that are overshadowed by the dooming scenario of the world's sixth mass extinction. Everybody who works here knows very well that the *Hippocampus* individuals are contemporary and future agents and protagonists of conservation policies that ensure that *those who care can* gather hope for the future of their ecosystem's s exception from extinction.

Back at the onlooker's side of the show aquarium, the uniqueness of the pregnant seahorse fathers—the feature no aquarium refrains from mentioning—turns the whole of the genus into one that is charged with the appeal of a distinctive and inimitable charm; an entity that one likes to worry and care about. Not only their appearances, but also their stories, touching ever so gently on the concerns of modern and traditional human life experiences in terms of family and relationships, echo from the ocean floor to mobilize forces for conservation. The ways in which we as humans interpret, appropriate, and strategically use these fishes' unique ways of life, support their survival unlike that of many other, less loved and less narratable ones.

The curious case of the seahorse gives an example of the complexities and controversies of care that emerge when we think of it as a practice that is happening both within as well as across species. Seahorses have always been *perceived to be* special, rendering them organisms worthy of care. Their peculiarity and idiosyncratic ways of corporeal caring are, however, not always met with awe and admiration. When Jean

Painlevé first screened his film “Cheval Marin” in Paris in 1934, it became an instant hit. “Have you seen that film about the pregnant male?” people asked each other on the Metro.¹⁷ The film showed seahorse courtship, pregnancy, and birth, and its version of “subversive, feminized masculinity”¹⁸ was regarded as so obscene and offensive that it was banned from being screened in the US in 1936.

The affective power that the stories about seahorses and care nowadays hold, might yet be the key to their survival. The aesthetic, storied charisma of the seahorse family in all its diversity does indeed lead humans in “entering into responsibility”¹⁹ and therefore often into narrative, scholarly, and political action. This responsibility, however, prompts possibility as well: the possibility that there are many forms and facets of care that remain to be explored, and that extend beyond the boundaries of landscapes aquatic and terrestrial.

17 Ursula Harter, *Aquaria in Kunst, Literatur und Wissenschaft* (Heidelberg: Kehrer, 2015), 139.

18 Ibid.

19 Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 36.