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Researchers' recreations

Making a splash

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Many hobbyists look after tropical fish, but LMU veterinarian Daniela Rodler spends much of her free time in aquariums – surprising visitors with the unexpected sight of a mermaid among other marine creatures. In her day job in the Faculty of Veterinary Medicine her focus is on birds of the air.



Foto: Neptun-Pictures / Andreas Scholer, Sealife München

Visitors to SEALIFE in Munich are amazed when behind the glass wall of the tank – among the sea turtles and the sharks – a mermaid suddenly appears. This creature sports a shimmering turquoise fishtail and her blonde tresses swirl and sway in the current. She waves to the spectators, plays with her fellow denizens of the sea, and sometimes a diver comes by and offers her some seaweed salad. These underwater scenes last for up to three minutes; then the mermaid makes for the surface – for a deep draft of air. "I'm a free diver. I don't use a breathing apparatus in the tank," Daniela Rodler explains, back on land. "A mermaid with a cylinder of compressed air strapped on her back wouldn't make quite the same impression!"

Rodler, who is in her middle 30s, is not a professional diver. She is a qualified veterinarian and works as an animal biologist at LMU. But whenever her commitments as a staff scientist (currently engaged on her Habilitation) at the Department of Anatomy, Histology and Embryology in LMU's Faculty of Veterinary Medicine allow her to do so, Dr. med. vet. Daniela Rodler leaves her white coat in the lab, and dons an outfit that includes an integrated fishtail made of silicone rubber. Then she joins the giant turtles, sharks and other spectacular marine organisms in the aquarium tank, to the surprise and amusement of the visitors. She can be seen occasionally in Munich, and has also appeared in large marine aquaria abroad – in Edinburgh and Chester (UK), in Denver (Colorado) and on the island of Grenada in the West Indies.

The initial inspiration

"I have always been fascinated by legends and sagas featuring sirens and water-sprites," she says. But this interest became a passion when, as a young schoolgirl, she saw the film "Splash", in which Daryl Hannah played the mermaid. "I even designed a costume for myself, made out of nightdresses and a pair of flippers, and learned how to move about in it in swimming pools." When she was 11, she joined a swimming club and became a member of its swimming team. Later on she took up classical ballet, and had lessons in acting and singing. She appeared in minor roles in

movies, and in TV series including "Bibi Blocksberg 2" and "Rosenheim Cops". While studying Veterinary Medicine at LMU, she gave up her underwater activities, but only temporarily, as it turned out. "While I was working on my doctoral thesis, I got my diving license, for scuba diving and for free-diving without a breathing apparatus," she says, all with the intention of taking up her sideline as a mermaid again in her free time. And from 2011, she began to receive invitations to appear in aquaria and has been engaged for film projects and underwater photo sessions that required the participation of a live mermaid. "So I have been able to combine acting with diving." Since then, she has spent most of her vacations honing her diving skills or appearing in aquariums or on the set. "I really don't have much time for a private life — I'm always either at the university or underwater."

The perils of playful sea turtles

Her silicone rubber fishtail, which weighs 12 kilos, was made in the US, where human water-sprites are nothing like as rare as they are in Germany. "It's actually more of a special-effects prop than a costume," she says. – And the appendage is so cumbersome on dry land that she has to be carried to the pool. But once in the water, she is able to move about gracefully, in a style that owes a lot to another kind of marine mammal – the dolphin. "But I have to be careful that my heels and my knees don't rupture the rubber. Children are my most unforgiving critics, and they sometimes complain that the tailfin doesn't look right." To stay in trim, Daniela Rodler goes regularly to Munich's Nordbad (and in training she uses a monofin, not her mermaid costume). When she dives in large aquaria, Dr. Rodler is always accompanied by at least one scuba diver. "He has a small emergency air-tank, which I can use if I get snagged on a reef, for instance. It contains enough compressed air for about 40 breaths – and during that time I have to work myself free." The permanent residents of the aquariums she visits can also cause problems. Sometimes, she shares the water with turtles weighing up to 100 kilos, and they have been known to nip at her tailfin or force her to the bottom. "They don't mean any harm, but it can be very dangerous when one has no air supply." The other area she is careful to avoid in the mini-oceans where she appears is the place where the sharks congregate at feeding time. "In Chester, I once had not only sand tiger sharks but also lemon sharks for company. I wouldn't do that now – lemon sharks can be pretty nasty."

Perhaps surprisingly, marine animals are not the focus of Rodler's research interests. At LMU, she studies oogenesis in birds. "I actually wanted to work on fish, and I originally intended to study marine biology – but that's not the way things worked out." The subject of her thesis for her Habilitation is the functional morphology of the avian ovary. "In most birds – unlike the case in mammals – only the left ovary is fully developed," she explains. "The anatomical asymmetry is generally regarded as an evolutionary adaptation to the demands of flight, based on the idea that dispensing with one ovary and its large, yolk-rich egg cells – just think of your breakfast egg – would mean a considerable reduction in weight." However, some bird species, particularly birds of prey, have retained paired ovaries. In collaboration with colleagues at LMU's Bird Hospital, she hopes to discover why this is so.

In her persona as a mermaid, Rodler also takes to the water for good causes. In cooperation with a diving school, she plays Arielle for a swarm of young swimmers who have Down syndrome. At Christmastime, she has appeared in the guise of an aquatic angel adorning a sunken Christmas tree. And some of her underwater performances have benefitted charities such as the German Red Cross, the Association of Parents of Handicapped Children, the Children's Hospital in Harlaching and the Alliance for Human Rights, Animal Welfare and Conservation. Daniela is not sure how long she can continue to reconcile the demands of her academic career and her time-consuming hobby. "In future," she says, "my research and my teaching duties will certainly take up most of my time. – But my students are surely the only ones in Germany who will be able to boast that they were taught by a mermaid!" aib