

Coral Reef Tanks in Germany

The German way of reef tank husbandry has been too narrowly defined as "the Berlin method."

Text and photos by Andre Luty

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This reef tank is owned by the author. It is a 75 gallon tank that contains live rock and limestone. There are two powerheads behind the rocks and one Eheim 1060 filter. There is also a 18-inch tall protein skimmer, a 15-watt ultraviolet sterilizer and the tank contains coral sand. Lighting is provided by one 150-watt metal halide bulb (10,000 K) that is on for 10 hours and two 30-watt fluorescent tubes (marine blue) that are on 11 to 13 hours. There is a Biocalcium and calcium reactor.

As the leader of the German Marine Aquarium Society (VDM: Vereinigung der Meerwasseraquarianer e.V.) I have found through correspondence with international marine scientists and marine aquarium hobbyists that the German way of reef-tank husbandry has been too narrowly defined as "the Berlin method." In fact, there are many different techniques used in our coral reef aquariums and I would like to share some of them with you here.

Although the German reefkeeping hobby suffered somewhat because of the prohibition of the importation of angelfish and butterflyfish in the '70s, '80s and '90s, we were still able to create excellent reef aquariums. At the beginning of this time period Peter Wilkens published his books about invertebrates in the marine aquarium and D. Stuber discovered the first Acropora coral (*Acropora formosa*), which we now know is relatively simple to cultivate in the aquarium. This marked the beginning of coral reef husbandry. Today, a marine tank that contains only fish is a rare sight in our country.

In Germany, we use several methods for keeping a coral reef aquarium. For many years now, West-Berlin aquarists have used protein skimmers, added calcium (a concept developed by Peter Wilkens) and set their tanks up using a "natural" system with live rock. Most of the tanks are between 300 and 1000 liters (75 and 250 gallons). In the beginning, lighting was provided by fluorescent tubes (lumilux 11 and blue lights) and later, predominantly with metal halide bulbs (daylight 10,000 Kelvin [K]). Recently, calcium supplementation was replaced by the calcium reactor developed by D. Stuber and J. Gottschlich. Click image to enlarge

A spectacular *Goniastrea retiniformis* imported from the Red Sea.

Because of the Berlin Wall, East German aquarists didn't have access to many tropical marine animals and so maintained only a few species — but I think with more dedication. Before 1990, the tanks were dominated by animals from the Mediterranean. The first attempts at fragmenting soft corals and mushroom anemones took place in East Germany in the '60s. East German aquarists were also breeding anemones (*Cerianthus* sp., *Anemonia* sp., *Bunodactis* sp.), shrimps (*Palaemon squilla*, *P. elegans*), hermit crabs (*Eupagurus anachoretus*), as well as several species of marine fish (*Amphiprion* sp., *Syngnathus* sp., *Salarias pavo*). There was no marine aquarium industry in East Germany and hobbyists made their own skimmers and pumps. Today we can find a mixture of the East German aquarium tradition with more and more West German standards.

Around the city of Chemnitz we can still find many private marine tanks using trickle-filters and live rock that have no protein skimmers. On the other side of the wall there are tanks with protein skimmers that add calcium or have a calcium reactor and operate with a more natural system. Typically, light is provided by metal halide bulbs in combination with blue fluorescent tubes. Here we found many tanks of 300 to 700 liters (75 to 180 gallons) that contain mushroom anemones and soft and hard corals.

In the region around Nurnberg you can find larger aquariums of 1000 to 3000 liters (250 to 750 gallons) that are dominated by soft corals and *Tridacna* clams. These aquariums use protein skimmers, metal halide bulbs, more have calcium reactors instead of adding calcium and all use a more natural system with more limestone than liverock.

Around the city of Karlsruhe you can find marine aquarium systems much like those in Nurnberg, but the aquarists here work with more liverock. In these tanks you find mostly marine invertebrates, especially gorgonians, as well as large *Tridacna* clams.

The trend in Germany today is to keep small fish in pairs and little schools of fish in our reef tanks. Just as we became successful at keeping stony corals in the past, there is now an interest in shrimp, new soft corals, tubeworms and sponges. Since 1997 we have been able to maintain angel- and butterflyfishes, although there is still little interest in these

fish because they do not make good reef tank fish, with the exception of the Centropyge angels.