



Teacher's Guide for *Gobies Go Round-Round* comic

In *Gobies Go Round-Round*, you find a poetic story and five related activities.

Gobies Go Round-Round is a poetic comic designed to share knowledge with students about an interesting group of small fish that live in the rivers in Papua New Guinea and elsewhere in the Pacific.

These gobies (Family Gobiidae) are amphidromous migrators, meaning they move between rivers and seas at different stages of their life cycle. When gobies return from the sea as juveniles, they undergo transformations in their body shape and size that allow them to live in rivers.

To grow and become adults, many amphidromous gobies eat algae that grow on rocks in rivers. Many amphidromous gobies can also climb vertical rock surfaces, using their mouths and modified fins on their bellies that act like suckers. Such modifications help the tiny gobies swiftly swim up-river and graze on algae despite fast-flowing waters.

Amphidromous gobies not only dart between rocks with their modified fins; they also climb high waterfalls (tens of metres) and make their nests in rock pools at the top. Gobies lay their eggs at the top of waterfalls, which are relatively safe places. Predators, like the Bass and Perch in the comic, can't swim up waterfalls to eat gobies.

There remain many gaps in scientific knowledge about amphidromous gobies, including how long they stay in rivers once they hatch or how many days or weeks that they are in the ocean feeding as juveniles. With all their modifications and mysteries, gobies are exciting species for scientists to study.

The seasonal migration of juvenile gobies back into rivers after feeding out at sea is also an important time for many people across the Pacific. Many people depend on these fishes for protein and micronutrients.

The glossary at the back of the comic, along with some visual guides, provides explanations for less common and technical words that appear in the story.