The term *fish* is applied to a variety of vertebrates of several evolutionary lines. It describes a life-form rather than a taxonomic group. As members of the phylum Chordata, fish share certain features with other vertebrates. These features are gill slits at some point in the life cycle, a notochord, or skeletal supporting rod, a dorsal hollow nerve cord, and a tail. Living fishes represent some five classes, which are as distinct from one another as are the four classes of familiar air-breathing animals—amphibians, reptiles, birds, and mammals. For example, the jawless fishes (Agnatha) have gills in pouches and lack limb girdles. Extant agnathans are the lampreys and the hagfishes. As the name implies, the skeletons of fishes of the class Chondrichthyes (from *chondr*, "cartilage," and *ichthyes*, "fish") are made entirely of cartilage. Modern fish of this class lack a swim bladder, and their scales and teeth are made up of the same placoid material. Sharks, skates, and rays are examples of cartilaginous fishes. The bony fishes are by far the largest class. Examples range from the tiny seahorse to the 450-kg (1,000-pound) blue marlin, from the flattened soles and flounders to the boxy puffers and ocean sunfishes. Unlike the scales of the cartilaginous fishes, those of bony fishes, when present, grow throughout life and are made up of thin overlapping plates of bone. Bony fishes also have an operculum that covers the gill slits.The study of fishes, the science of ichthyology, is of broad importance. Fishes are of interest to humans for many reasons, the most important being their relationship with and dependence on the environment. A more obvious reason for interest in fishes is their role as a moderate but important part of the world's food supply. This resource, once thought unlimited, is now realized to be finite and in delicate balance with the biological, chemical, and physical factors of the aquatic environment. Overfishing, pollution, and alteration of the environment are the chief enemies of proper fisheries management, both in fresh waters and in the ocean. (For a detailed discussion of the technology and economics of fisheries, *see* commercial fishing.) Another practical reason for studying fishes is their use in disease control. As predators on mosquito larvae, they help curb malaria and other mosquito-borne diseases.