

Foreword

Scientific and Popular Names

Every species of animal is given a scientific name, which is formed either from Latin words or from words or combinations of letters that have been Latinized. The scientific name usually consists of two parts, a capitalized italicized generic name and an uncapitalized italicized specific name. The scientific name may be followed by an initial or a proper name that indicates what person described the animal—and sometimes by a date to indicate when the description was published.

For example, take two species of southern marine shrimps belonging to the genus *Penaeus*. The specific name of one shrimp is *aztecus* and of the other *setiferus*. Because in the year 1891 the first of these two species was described and named by the scientist J. E. Ives, its designation in full is *Penaeus aztecus* Ives, 1891 and, in somewhat abbreviated form, *P. aztecus* Ives.

The great Swedish naturalist Linnaeus originally named and described the second of the two species. Therefore, this species is known as *Penaeus setiferus* (Linn., 1767) or *P. setiferus* (L.), either Linn. or the initial L. being generally accepted abbreviations for the name Linnaeus. Note the parentheses around the abbreviated name or initial and the date. These parentheses show that the generic name given to the animal by Linnaeus was something other than the present-day generic name *Penaeus* and that a later worker placed this species in the genus *Penaeus*. Nevertheless, Linnaeus received credit as namer because it was he who first

described the animal and gave it a specific name, *setiferus*.

A taxonomist may decide to divide a genus into two or more subgenera. If so, he or she assigns appropriate subgeneric names, which are capitalized, italicized and placed in parentheses between the generic name and the specific name. In 1969, Dr. Isabel Pérez-Farfante, working at the United States National Museum of Natural History, concluded on the basis of certain anatomical features that the genus *Penaeus* should be subdivided into several subgenera and that, accordingly, *Penaeus setiferus* should be known as *Penaeus (Litopenaeus) setiferus* and *Penaeus aztecus* as *Penaeus (Melicertus) aztecus*.

If within a given species a taxonomist decides that there are two or more subspecies, he so indicates by placing after the name of the species a different subspecific name, uncapitalized but italicized, for each subspecies. In her revision of the genus *Penaeus*, Dr. Pérez-Farfante decided that *Penaeus (Melicertus) aztecus*, which occurs along the American Atlantic and Gulf coasts from Martha's Vineyard to Rio de Janeiro, comprises two subspecies, a northern one, *aztecus*, and a southern one, *subtilis*. Thus, the complete designations became *Penaeus (Melicertus) aztecus aztecus* and *Penaeus (Melicertus) aztecus subtilis*.

Taxonomists give a precise scientific label to each animal that they describe so that any scientist using an animal in his studies can specify accurately to his colleagues the identity of the animal. The scientific label also indicates certain relationships regarding the animal, as the examples given above illustrate.

Popular names do not suffice for these purposes. They tell nothing of the relationships between animals, and many popular names may be used for a single animal, the names varying from one locality to another.

The southern marine shrimps of the western Atlantic Ocean provide an excellent example of this. The most frequently used popular name for *Penaeus (Litopenaeus) setiferus* is white shrimp. Yet this animal is also called the common shrimp, grey shrimp, rainbow shrimp, southern shrimp, in Louisiana the lake shrimp, and in North Carolina the green shrimp, green-tailed shrimp, or blue-tailed shrimp. *Penaeus*

(*Melicertus*) *aztecus aztecus* is known as the brown shrimp, brownie, green lake shrimp, red-tail shrimp, and in Texas the golden shrimp or red shrimp. *Penaeus* (*Melicertus*) *aztecus subtilis* may be referred to as the brown shrimp or dark shrimp, and in South America by a variety of local names. *Penaeus* (*Melicertus*) *duorarum duorarum* is called in Florida the pink shrimp, in North Carolina the blue-tailed shrimp or the channel shrimp, and elsewhere the grooved shrimp, brown-spotted shrimp, pink-spotted shrimp, green shrimp, red shrimp, and other names.

Along the west coast of Mexico, Central America, and north-central South America the name white shrimp is applied to *Penaeus occidentalis*, *Penaeus stylirostris*, and *Penaeus vannamei*, while along the east coast it is applied with equal abandon to *Penaeus* (*Litopenaeus*) *setiferus* and *Penaeus* (*Litopenaeus*) *schmitti*.

In many other groups of animals the situation regarding popular names is no better. With the spiny lobsters, which are familiar to many readers in the form of frozen lobster tails, the problem has become so acute that Dr. Harold W. Sims, Jr., of the Florida State Board of Conservation has published a short paper entitled: "Let's call the spiny lobster 'spiny lobster.'" For in addition to being known as a rock lobster, langouste, thorny lobster, and long oyster, the spiny lobster is also frequently called a sea crayfish or a marine crawfish. But a close freshwater relative of the American lobster is also called a crayfish or crawfish—or crawdad. And in many parts of the world a freshwater shrimp of the genus *Macrobrachium* is known as a crayfish or crawfish.

We could continue citing examples of this sort almost indefinitely, but these few should suggest the confusion that can arise from the use solely of popular names. When used in conjunction with scientific names, as they are in this book, popular names are a convenience and have a certain value.

