

# Some prose on a database of indigenous knowledge on fish

There are about 24,000 species of cartilaginous and bony fishes in the world. The International Centre for Living Aquatic Resources Management (ICLARM) has started together with the Food and Agricultural Organization of the United Nations (FAO) to assemble and standardize information on them.

Fishers from Palau increase their dropline and speargun catches through their knowledge of the reproductive cycle of remochel (*Epinephelus fuscoguttatus*), one of the most important resource species in the area (Johannes 1981).

In Molière's comedy of 1670 'Le Bourgeois gentilhomme', the hero, who strives rather unsuccessfully to acquire the 'touch' of an aristocrat, discovers, much to his amazement, that what he had spoken all his life is called 'prose'. Thereupon, in one rather hilarious scene, he calls all the members of his family, and belabors them for not knowing that when he speaks, he speaks... prose!

On 22 April 1992, Dr. Michael Warren gave at ICLARM a fascinating seminar on 'Indigenous Knowledge (IK) and Development', and we discovered, much to our amazement, that we had been developing in the last years a global database of IK related to fish, and had not been aware of it.

The project in question is called FISHBASE, and is a joint activity of the International Center for Living Aquatic Resources Management (ICLARM) and of the Food and Agriculture Organization of the United Nations (FAO), funded by the Commission of the European Communities (CEC).

The goal of FISHBASE is to assemble, standardize and then make available for research, development and conservation (published) information on all of the 24,000 species of cartilaginous and bony fishes in the world (Froese 1990, Pauly and Froese 1991, Froese et. al. 1992).

As of September 1992, 'only' 6,000 species have been covered, but those included contribute to over 80% of the world's fish catch. Also included are all species used for aquaculture, all commercial species of the North Atlantic and the Mediterranean, most European freshwater species (all of Germany, Belgium, France, etc.), over 800 African freshwater species, over 1,500 Asian marine species, all

D. Pauly  
M.L.D. Palomares  
R. Froese

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fishes of the USA and Canada, all freshwater fishes that have been introduced to another country, all fishes contained in the IUCN Red List, all sharks, all marine fishes dangerous to humans, all important game fishes, all members of important families such as the Scombridae and the Clupeidae, and more. For all of these species, FISHBASE contains over 8,600 synonyms and over 20,000 common names in various languages, a prime example of IK.

## How to integrate IK into FISHBASE

The structure of FISHBASE, and especially its fields for entering common names allow for a large fraction on indigenous knowledge of fishes (i.e., ethno-ichthyology) to be incorporated into FISHBASE (Palomares and Pauly 1992).

Now aware of this, we need to establish an international network of collaborators on and contributors of indigenous knowledge on fishes, just as we have for 'scientific' knowledge (SK?).

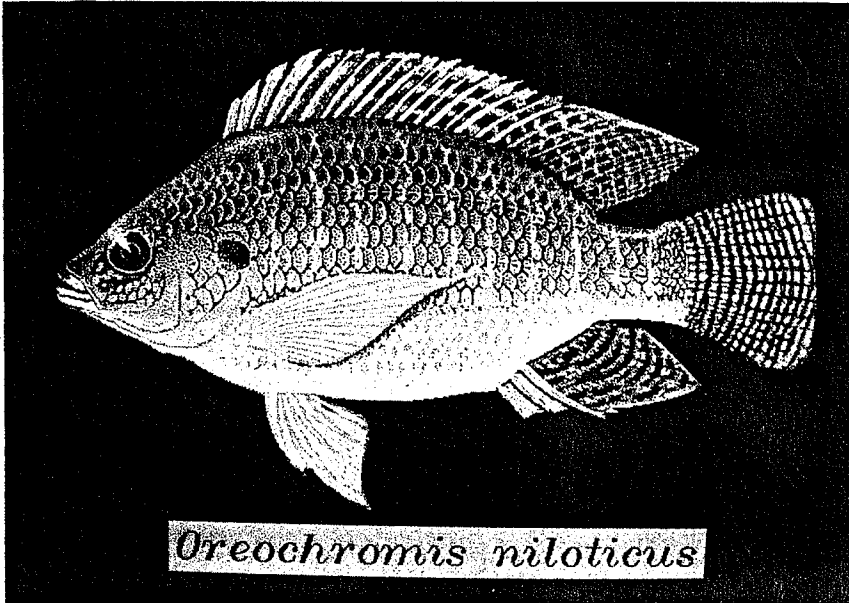
The rules will be the same for IK as for SK; if IK is to be incorporated in FISHBASE, it will have to:

1. be attributable to a published, verifiable source (though not necessarily in a peer-reviewed journal; we use books, reports, and even theses as 'sources');
2. be pertinent to individual species or group of species, i.e., not refer to 'fish' in general;
3. involve as few free-text entries as possible, or conversely;
4. not be 'open-ended', i.e., generally be broken into relatively small ( $n \leq 99$ ) sets of multiple choices (e.g., fish species X is used by ethnic group Y for either A, B, C, ..., where A, B, ... are choices described by standardized text fields with descriptions valid between species and ethnic groups).

The last item is important. It enables FISHBASE to:

- allow rapid entry of a large amount of information, while reducing opportunities for typing errors;
- have limited (memory) requirements for storage;
- ensure a high degree of searchability for the information contained in the database.

It may scare off social scientists who feel perhaps that IK is too elaborate and intricate to be reduced into a set of (transcultural!) multiple choices. Yet if this cannot be done – and this is conceptually not very different from establishing a thesaurus of key terms for a given discipline – intercultural comparisons will not be possible, and ethno-ichthyology (and perhaps IK as a whole) will not move beyond anecdotal and site-specific accounts.



A 'computer painting' of Nile tilapia *Oreochromis niloticus*, as incorporated in FISHBASE, along with the indigenous knowledge on this important African foodfish, called 'wass' in Wolof, Senegal, and 'pla-pla' in the Philippines.

**Fishers know the value of the fish not only because they get a good price for a widely sought after species, but also because they consume the fish they do not sell. Thus, they know the culinary value, and the ways to preserve seasonally abundant fishes.**

#### Call for cooperation

We conclude thus by reiterating the call for cooperation in Palomares and Pauly (1992), which covered two areas of ethno-ichthyology:

- with regard to common names, we look forward to receiving (photo)copies of publications with common names of fishes, in any language. We will cite in FISHBASE the supplier of this IK, and supply him or her, in return, with appropriate FISHBASE products (or with the package as a whole in case of major inputs);
- with regard to more complex information pertaining to traditional management, and practical or symbolic uses of various species (e.g., as food or other product, as source of medicine, or as element of rituals), we would like to cooperate with interested colleagues on the development of suitable FISHBASE forms and fields, their documentation in a newsletter or journal article, and the subsequent entry of the relevant information.

**More often than not, fishers' reports of biological processes will turn out to be close to those of the scientists, once account is taken of the specific imagery and language use for reporting.**

Please contact us if you are interested in either or both of these modes of cooperation. Our address is:

The FISHBASE Project  
 ICLARM  
 MC P.O. Box 2631  
 Makati, Metro Manila 0718  
 Philippines

*FISHBASE is presently available in the form of 3-1/2" diskettes for MSDOS computers, but will be distributed starting late 1993 in the form of CD-ROM.*

#### References

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