

Key Facts on all fishes of the world now available on the Internet

The big scientific event of the year 2000 is the near complete map of the human genome, now a large computerized database with information from which medical miracles are expected to flow, along with large profits for pharmaceutical companies.

The Earth is inhabited by more than humans, and our interactions with these other inhabitants, comprising the Earth's biodiversity, will impact on our future as much as the knowledge of our own genome. Thus we could ask: Who is mapping the 'Earth's genome', that is its biodiversity?

The initiative to map the Earth's genome, the over 1.75 million species so far described, is called Species 2000 (www.species2000.org) and has started recently, with still a long way to go.

One contributor to Species 2000 is FishBase, the electronic encyclopedia of fishes (www.fishbase.org) that was launched 10 years ago by the International Center for Living Aquatic Resources Management (ICLARM), as a project aiming to provide key information on all of the 25,000 known species of fishes in the world's oceans and freshwaters – the largest group of vertebrates on Earth, and a major source of food and other benefits for humanity.

This goal, which seemed barely attainable when the project began, has been reached in August 2000, when the 25,000th species name was entered, along with related information on its distribution, biology and uses. However, this goal could not have been achieved, had it not been for intense collaboration between the FishBase Team and various groups such as the Fisheries Department of the Food and Agriculture Organization of the United Nations, Rome, the Department of Ichthyology, California Academy of Sciences, San Francisco and many other groups,

including the Fisheries Centre, UBC.

Moreover, the species in question, just like the last bit of DNA mapped before the official announcement of the complete mapping of the human genome, was a symbolic one: there are in fact more species to be entered, and much ecological, biological and other information remains to be accessed on the species already in the database to fully represent the global state of knowledge on fishes. Still, fishes are the first major group of organisms to be covered comprehensively in an electronic database – the first 'gene' of the Earth's genome to be completely mapped.

Support for the development and dissemination of FishBase was provided, via ICLARM, mainly by the European Union, as part of a program of scientific collaboration with developing countries. As a result, the fishes of these countries, which are home to the majority of fish species, are particularly well documented in FishBase. This was ensured by (1) local nodes (in West, East and Southern Africa, in the Caribbean and in the Pacific) whose coordinators gather locally available information, and (2) a data repatriation program, involving collaborating museums (in Belgium, Canada, France, Germany, Mexico, Sweden, UK, and USA), whose fish distribution records are being incorporated in FishBase.

Overall, the milestone now reached by FishBase shows that mapping the Earth's biodiversity is achievable, even for large, species-rich groups such as fishes, given a willingness for key players to share their resource, and thus provide an example that encourages other players to join. Moreover, the need for information such as available through FishBase is manifest in the fact that the Internet version of the database receives up to half a million hits per month.



THE 2000 FISHERIES CENTRE ESSAY PRIZE

In order to encourage good writing, the Fisheries Centre announces its 2000 essay competition with a first prize of \$500, and a second prize of \$200 (Canadian dollars). The competition is open to any graduate student, including visiting students, associated with the Fisheries Centre (*criterion: you are, or have been, listed on the Fisheries Centre's web site and are still a registered student for Masters or Ph.D. at a recognized university*).

Write a short essay informing the public about your research in fisheries. We define fisheries *sensu lato*, to cover all aspects of the exploitation of living aquatic resources. However, essays addressing pure biology will not be eligible. The essay must be written in English (no longer than 800 words) and submitted to Janice Doyle, Fisheries Centre, before the deadline of 12 noon, Monday, October 2, 2000. All entries must be original printed copy; faxes, emails, etc., are not allowed. **Be sure to visit the Fisheries Centre's website for full regulations and requirements.**

The winner will be announced by 1 December 2000. We will publish the winning essays in *FishBytes* and on the Fisheries Centre's website. The competition will be held annually when finances allow. The judges will include Fisheries Centre Faculty, Dr Arthur Tautz (Director of the BC Provincial Government Fisheries Research Unit), and Dr Charles Hollingworth (the Adjunct Professor responsible for our course on Scientific Writing in Fisheries). Please note that the judges reserve the right not to award prizes if, in their opinion, the essays do not approach a suitable standard.

