

Brazilian Ictiology Society (Sociedade Brasileira de Ictiologia - SBI)

**MANIFESTO OF THE BRAZILIAN ICTHYOLOGY SOCIETY REGARDING
THE IMPORTANCE OF THE CONSERVATION OF
LARGE MIGRATORY FISH OF THE MADEIRA RIVER**

Brazil is the world leader in freshwater fish diversity, with the Amazon basin the richest in species, including many still unknown to science. Many of these species (such as *tambaquis*, *jaraquis*, *matrinchãs*, *filhotes*, *surubins*, *piramutabas*, *douradas*, among others) have to migrate during their reproductive cycle, and impeding this migration causes serious impacts to the numbers of individuals of these species, potentially resulting in the disappearance of the affected species. Hydroelectric dams are the most important cause of this impediment, and are among the man-made structures that have greatest impact on communities of fish, especially migratory species. The construction of large-scale projects which interfere with the natural flow of rivers in the Amazon must be adequately evaluated, considering the inevitable damage that the projects will cause.

At this moment, considering the discussions regarding the hydroelectric projects to be installed in the Madeira River basin, the Brazilian Ichthyology Society – SBI, an organization which includes as its members Brazil's principal fish researchers, manifests its concern regarding the possibility that man-made alterations of the hydrological dynamic of the Madeira River may cause irreversible harmful effects on fish, adversely affecting possibilities for the conservation of one of the largest migratory catfish species of the Amazon.

In recent months, the media has been publicizing the fact that catfish were elected as the central figures in a supposed conflict of interests between sectors of the Brazilian government, as well as between the government and the private sector. In this context, it is important to emphasize that the catfish species which has been mentioned – the *dourada* (*Brachyplatystoma rousseauxii*) – is a species of great commercial importance in the Amazon region, especially in the states of Pará, Amapá, Amazonas and Rondônia, in Brazil, as well as in extensive regions of Colombia, Bolivia, and Peru. It is a large species, which is at the top of the food chain on many rivers in Amazonia, and which deserves as much special attention as the large mammals of the rainforest and tropical savannas. The *dourada* is part of the group of amazing migrators which travel from the estuary of the Amazon River to the foothills of the Andes in order to reproduce, along with other species such as the *piramutaba* (*B. vaillantii*) and the *babão* (*B. platynemum*). Schools of these fish migrate annually from the eastern Amazon to the western part of the basin, swimming a distance of 4,000 to 5,000 kilometers. This migration results in the recomposition of reproductive stocks that live in the rivers upriver from Brazilian territory. On the Madeira River, the schools take four to five months to swim 3,100 km annually, which is the distance from the Amazon estuary to the Teotônio rapids (near Porto Velho, Rondônia state), travelling at a speed of about 15 to 19 km/day. The interruption of this migratory flux can have a great impact on the maintenance of these species and their populations, especially considering that genetic studies

indicate that the whitewater tributaries (rivers of Andean origin) of the Amazon River present populations of *dourada* composed of combinations of various genotypes (haplotypes). Therefore, environmental alterations and the interposition of barriers to their migratory movements as a result of dam construction place the populations of large migratory fish of the Madeira River at risk.

Considering this, the Brazilian Ichthyology Society hopes that a rational and well thought-out solution may be reached for conflicts regarding the use of the natural resources of the Amazon, one which recognizes the importance of the conservation of the large migratory catfish.

Besides this, the SBI considers it inappropriate to elect only one species as the main object of a discussion which should address the entire ecosystem directly and indirectly influenced by the dams planned for the Madeira River, including many aquatic and terrestrial species as well as regional socioeconomic factors. Finally, it should always be kept in mind that the immense biological diversity of the Amazon region is of a fragile nature, and that it represents an important window through which Brazil is seen by the eyes of the world. Damage to the natural world of this region, especially involving natural resources utilized by more than one nation, can rapidly cause a crisis of global visibility, hurting Brazil's image.

The above text was approved by the Directors of the Deliberative Council of the Brazilian Ichthyology Society (SBI), with the technical collaboration of Drs. Ronaldo Barthem, Jansen Zuanon, Angelo A. Agostinho and Luiz F. Duboc. The SBI is a non-profit association for the public benefit which has, among other objectives, the mission to work to promote the conservation and utilization of Brazil's fish fauna, and to represent the community of ichthyologists on the national and international level. Visit <http://www.sbi.bio.br>.