

Supplementary material (only available in the electronic version) A dozen fish: Some exotic invasive species found in Brazilian waters Elto A. Moreira, Daniel de Paiva Silva - Instituto Federal Goiano (IFGoiano), Campus Urutaí, Urutaí, Goiás, Brazil



Grass carp (*Ctenopharyngodon idella*) occurs naturally in China and Russia to eastern Siberia (Amur river system) in low-flowing water environments. In Brazil, it has known records in natural environments in the states of RJ, PR, RS, PE and SP.



Mozambican tilapia (*Oreochromis mossambicus*) is a species that originates in southeastern Africa, from the Bushman River in the Eastern Cape to the Zambezi River delta. There are records of occurrence of the species in the natural environment, as an example in the Tietê river, in the municipality of Buritama-SP and in the state of Paraíba (PB).



The silver carp (*Hypophthalmichthys molitrix*) has Asian origin (China and Russia) and has characteristics similar to other carp. In Brazil, there are recorded occurrences of silver carp in natural environments, such as in the DNOCS reservoirs, São Francisco River, Lake Paranoá (DF) and Lagoa dos Patos and Lagoa Mirim (RS).



The bighead carp (*Hypophthalmichthys nobilis*) has Asian origin, mainly in the Amur River, between the border of China and Russia. In Brazil, the species has already been found from RS to PE.



Tilapia (*Oreochromis macrochir*) is native to Africa, distributed in the upper reaches of the Zambezi River and the Congo River. In Brazil, the first record of the species in the wild occurred in the municipality of Porto Seguro (Bahia), on the Buranhém river. It has also been registered in 10 reservoirs in Paraíba (PB). Although more restricted, the species is cultivated in the country in net tanks, as in Rio Grande, in the municipality of Barra (BA).



The African catfish (*Clarias gariepinus*) has Asian origin, distributed in South and North Africa, the Middle East, Israel, Syria and southern Turkey. It has also been introduced elsewhere in Africa, Asia and Europe. In Brazil, it has been observed in several basins in Brazil, in the states of MG, SC, SP, ES, RJ, RS, PR and GO.



The common or Hungarian carp (*Cyprinus carpio*), is an Asian species, originally, this species was cultivated for more than 2000 years, being distributed in Europe and Africa for more than 600 years. In Brazil, it has already been found in the natural environment of at least 15 states, in the Pantanal, Amazon, Cerrado, Caatinga, Atlantic Forest and Coastal regions biomes.



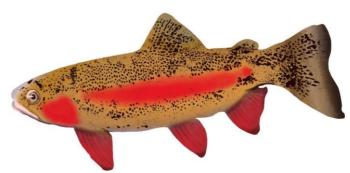
The Nile tilapia (*Oreochromis niloticus*) originates from the rivers of the coast of Israel (junction of the African continent) and rivers of Africa (including the Nile river). This species is present in all major river basins in Brazil. It occurs in artificial and natural environments of the Atlantic Forest, Cerrado, Pantanal, Caatinga and Amazon. It has a more noticeable presence in the Northeast and Southeast regions.



Rendalli tilapia (*Coptodon rendalli*) is native to the Congo basin, Lake Tanganyika, Lake Malawi, Zambezi and coastal areas of the Zambezi delta. In Brazil, it has already been recorded in natural environments in the states of RS, SC, PR, SP, MG, RJ, MS, DF, PE and AP.



The American catfish (*Ictalurus punctatus*) is native to North America, present in the central channels of the United States, southern Canada and northeastern Mexico. In Brazil, although the species is introduced in natural environments, its dispersion still seems to be restricted in some locations, such as Lagoa dos Patos (RS), in two dams in CE and in the Guaragaçu River (PR).



The rainbow trout (*Oncorhynchus mykiss*) is native to North America (United States and Canada), in waters that drain into the Pacific Ocean. Its first report in Brazil is from 1913, in Serra da Mantiqueira. Occurrence in the wild has already been recorded in the following locations: Serras Gaúchas, Serra da Mantiqueira, Serra do Itatiaia, Serra da Bocaina and Serra dos Órgãos.



Largemouth bass or black bass (*Micropterus salmoides*) is native to North America, occurring in southern Canada, northern United States (in Hudson Bay and Mississippi River, Atlantic drainages from North Carolina to Florida) and northern Mexico . In Brazil it has already been registered in the states of SP, MG, SC, PR, RS and DF.