Convention on the Conservation of Migratory Species of Wild Animals

Secretariat provided by the United Nations Environment Programme

16TH MEETING OF THE CMS SCIENTIFIC COUNCIL

Bonn, Germany, 28-30 June 2010

UNEP/CMS/ScC16/Doc.7
Agenda Item 14.1

DRAFT PROPOSALS FOR THE INCLUSION OF FRESHWATER FISH IN THE CMS APPENDICES

(Introductory note prepared by the CMS Secretariat)

1. The four draft proposals for the amendment of CMS Appendices attached to this note have been submitted by the Government of Paraguay and will be presented by Ms. Cristina Morales, Scientific Councillor for the Government of Paraguay.

2. They have been submitted to the Scientific Council for its consideration. Based on a positive evaluation from the Scientific Council, the Secretariat will address appropriate Parties and invite them to consider and subsequently submit the proposals to the Tenth Meeting of the Conference of the Parties.

3. The Council may wish to consider the listing proposals in conjunction with the draft review prepared by Zeb Hogan on Migratory Freshwater Fish (UNEP/CMS/ScC16/Doc.6).

Action Requested:

The Scientific Council is requested to:

- Examine the proposals and see whether they can be formally submitted.

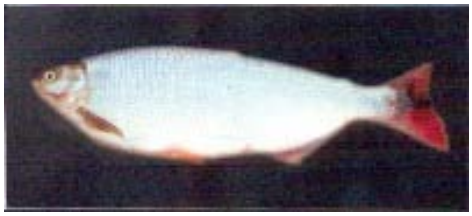
DRAFT PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

Proposal to add in Appendix I

Brycon orbignyanus

June 2010

PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICE OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS



A. **PROPOSAL**: Inclusion of the **Pirá Pitá, *Brycon orbignyanus* (Valenciennes, 1850)** in Appendix I of CMS

B. **PROPONENT:** Government of Paraguay

C. SUPPORTING STATEMENT

1. Taxon:

1.1 Class: ACTINOPTERYGII

1.2 Order: CHARACIFORMES

1.3 Family: CHARACIDAE

1.4 Genus/Species/Subspecies: *Brycon orbignyanus* (Valenciennes, 1850)

1.5 Common name(s): Pira pitá (Guarani) Salmón de río (Spanish) Salmón (Spanish) Pirapitanga, Piracanjuva (Portuguese)

2. Biological data

2.1 Distribution (current and historical) - see also 5

Basins of rivers: Paraguay, Paraná, middle and lower Uruguay, Rio de la Plata. Ecorregiones ictiológicas (Lopez et al., 2002): Subtropical Potamic Axis, Misionera, Lower Uruguay River. Freshwater ecoregions of the world (Abell et al., 2008): Iguazú, Lower Parana, Lower Uruguay. Ecorregiones ictiológicas (Lopez et al., 2008): Great Rivers.

2.2 Population (estimates and trends)

There are no population studies at the regional level.

2.3 Habitat (short description and trends)

The pirá pitá is a species that occurs in shady places with vegetation; in the upper Paraná it is located in the rapids. This migratory species starts downstream migration in late spring, with the first cold days the species starts the upstream migration. Spawning takes place from December to January.

The pirá pitá has a long body, up to 65 cm in total length (79.5 cm according to Godoy, 1975) and about 10 kg of weight. Its diet includes fruits, organic debris, seeds and other vegetables. (Sverlij et al., 1998).

2.4 Migration (kinds of movements, distance and proportion of the population migrating)

Migratory species represent the outstanding feature of large South American rivers ichthyofauna (Agostinho et al., 2004). This species follows a potamodromous pattern in its migration, it undertakes several and repeated migrations throughout its life (Oldani 1990 and Tablado et al., 1988; Petrere, 1985). Furthermore, in the Parana River, they are perfectly adapted to the geomorphology of the valley and seasonal variations of water level (i.e. they migrate upstream or downstream at any time of year) and reproduction, mainly to keep the geographical position of the populations (Oldani 1990). Tagging studies as a whole, (Bayley, 1973; Bonetto, 1963; Bonetto and Pignalberi, 1964; Bonetto et al., 1971; Bonetto et al., 1981; Tablado and Oldani, 1984; Oldani, 1990; Delfino and Baigún , 1985; Espinach Ros et al., 1998) showed that the species of genera Prochilodus, Salminus, Leporinus, Luciopimelodus, Brycon, Pseudoplatystoma, Piaractus, Sorubim and Paulicea, shad, golden, bogas, patíes, salmon, surubíes, pacúes , mandubíes and manguruyúes respectively, undertake the most important migrations, in some cases over 1000km..

3. Threat data

3.1 Direct threat to the population (factors, intensity)

This species is sensitive to changes in the water dynamics; its survival is threatened by lack of autochthonous food shortages, expected as a result of the reduction imposed by the damming of land areas with vegetation and water layer (Cecílio et al., 1997).

3.2 Habitat destruction (quality of changes, quantity of loss)

The main threat to this species is the deterioration of habitats due to the destruction of existing vegetation on the banks of rivers and their tributaries.

3.3 Indirect threat (e.g. reduction of breeding success, by pesticide contamination)

3.4 Threat connected especially with migrations

The species is known to have a downstream migration, with the first cold days it starts an upstream migration. Dams cause significant changes in the ichthyofauna due to habitat alterations, associated with current speeds, loss of level variations, modification of morphometric parameters (depth, width and development of coastlines) and water quality due to changes of nutrients content, total dissolved solids, dissolved gases, organic matter, etc.

3.5 National and international utilization

Its strength and combative behaviour is very appreciated in sport fishing. It is not an important commercial species, as their catches are scarce. Fly fishing, white bait and insects are used to capture this species. Its meat acquires a salmon colour when cooked, from which one of its common names is derived.

4. Protection status and needs

4.1 National protection status

SEAM (2009), in Paraguay has recognized that this species is threatened with extinction. It is a species categorized as endangered - A2ac criteria for Argentina and Paraguay (Cappato et. Al., 2009).

In Brazil, it is officially categorized as critically endangered in the state of Minas Gerais (1995), in Rio Grande do Sul (2002) as critically endangered, and endangered is the proposed category for the state of Paraná - A2ace criteria. (Abilhoa et. Al., 2004).

4.2 International protection status

4.3 Additional protection needs

Policies should be established for sustainable use of commercial fish, especially in places where fishing pressure is very high. Native tree reforestation of banks of rivers and tributaries. Development of educational programs for forests recovery and preservation, on rivers and their tributaries banks. Ensuring the maintenance of species migratory routes through the preservation of large river transects barrier-free by building efficient elevators in hydropower plants (if necessary). Prohibition and control of fishing activities of this species. Better understanding of the species biology and ecology through specific studies (Reis, et. Al., 2003).

5. Range States

Argentina, Brazil and Uruguay.

6. Comments from Range States

The three countries are CMS members and could undertake joint studies through specific concerted actions aimed at the conservation of the species.

7. Additional remarks

8. References

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DRAFT PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

Proposal to add in Appendix I

Salminus hilarii

June 2010

PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. **PROPOSAL:** Inclusion of **dama, dorada, dorado,dorado plateado, sábalo, saltador, saltadora, sauta (Spa) dourado, tabarana, tubarana, tuburuna (Por), Pirá pitá, Salmón de río, *Salminus hilarii,* (Valenciennes, 1850)** in Appendix I of CMS

B. **PROPONENT:** Government of Paraguay

C. SUPPORTING STATEMENT

1. Taxon

1.1 Class: ACTINOPTERYGII
1.2 Order: CHARACIFORMES
1.3 Family: CHARACIDAE
1.4 Genus/Species/Subspecies: *Salminus hilarii*, Valenciennes, 1850
1.5 Common name(s): dama, dorada, dorado, dorado plateado, sábalo, saltador, saltadora, sauta (Spanish) dourado, tabarana, tubarana, tuburuna (Portuguese) Pirá pitá, Salmón de río

2. Biological data

2.1 Distribution (current and historical) - see also 5
South America: upper Paraná River Basin, San Francisco. Basins of rivers: Amazonas, Orinoco Basin. Iguazú River, down the Falls (Liotta, 2006).

2.2 Population (estimates and trends)
Unknown.

2.3 Habitat (short description and trends)
Permanent rivers / streams / brooks / permanent streams. Permanent freshwater lakes. Permanent inland deltas.

2.4 Migration (kinds of movements, distance and proportion of the population migrating)
Migratory species represent the outstanding feature of large South American rivers ichthyofauna (Agostinho et al., 2004). This species follows a potamodromous pattern in its migration, it undertakes several and repeated migrations throughout its life (Oldani 1990 and Tablado et al., 1988; Petrere, 1985). Tagging studies as a whole, (Bayley, 1973; Bonetto, 1963; Bonetto and Pignalberi, 1964; Bonetto et al., 1971; Bonetto et al., 1981; Tablado and Oldani, 1984; Oldani, 1990; Delfino and Baigún , 1985; Espinach Ros et al., 1998) showed that the species of genera Prochilodus, Salminus, Leporinus, Luciopimelodus, Brycon, Pseudoplatystoma, Piaractus,

Sorubim and Paulicea, shad, golden, bogas, patíes, salmon, surubíes, pacúes , mandubíes and manguruyúes respectively, undertake the most important migrations, in some cases over 1000km.

This species lives in rivers, feeding on fish. Its stock is currently quite low; their capture is considered rare to moderate. (Da Graça, W. J. & Pavanelli, C.S, 2007).

Its first sexual maturation is reached at about 230 mm TL in females. The reproductive period occurs from October to February, the spawn is complete, it has external fertilization; it is a migratory species and does not present parental care. Presence of anal fin spicules in males during the reproductive season. This species lives in regions with water currents.

3. Threat data

3.1 Direct threat to the population (factors, intensity)

The main threat to this species are barriers in rivers and the consequent disappearance of lotic and continuous environments, unregulated fishing may pose risk. (Reis, et. al., 2004). Subsistence, artisanal/small-scale fishing, infrastructure development, transport - water, dams, subsistence use/local trade.

3.2 Habitat destruction (quality of changes, quantity of loss)

3.3 Indirect threat (e.g. reduction of breeding success, by pesticide contamination)

3.4 Threat connected especially with migrations

3.5 National and international utilization

Aquarium.

4. Protection status and needs

4.1 National protection status

SEAM (2009), in Paraguay has recognized that this species is within the vulnerable category. Species categorized as Vulnerable - A1ac criteria (Cappato, et. Al., 2009).

4.2 International protection status

4.3 Additional protection needs

Policies should be established by the country for sustainable use of commercial fish, especially in places where fishing pressure is very high.

5. Range States

Argentina, Brazil, Ecuador, Peru, Venezuela.

6. Comments from Range States

The five countries are CMS members and could undertake joint studies through specific concerted actions aimed at the conservation of the species.

7. Additional remarks

8. References

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DRAFT PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

Proposal to add in Appendix I

Genidens barbus

June 2010

PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. **PROPOSAL:** Inclusion of the **white sea catfish, marine catfish, *Genidens barbus* (Lacepède, 1803**) in Appendix I of CMS

B. **PROPONENT:** Government of Paraguay

C. SUPPORTING STATEMENT

1. Taxon

1.1 Class: ACTINOPTERYGII

1.2 Order: SILURIFORMES

1.3 Family: ARIIDAE

1.4 Genus/Species/Subspecies: *Genidens barbus* (Lacepède, 1803)

1.5 Common name(s): white sea catfish, marine catfish (Eng); bagre de mar, cabeza de piedra, mimoso, mochuelo, bagre marino (Spa); bacupua, bagre-cachola, bagre-branco, bagre-do-natal, bagre-do-mar (Por)

2. Biological data

2.1 Distribution (current and historical) - see also 5

Rio de la Plata and Paraná Guazú (Liotta, 2006). Parano-Platense Province (Ringuelet, 1975). Great Rivers Province (Lopez et al., 2008).

2.2 Population (estimates and trends)

Decreasing

2.3 Habitat (short description and trends)

Permanent rivers / streams / brooks / permanent streams. Estuaries.

2.4 Migration (kinds of movements, distance and proportion of the population migrating)

It is a large-sized species that can be up to 1.200mm in length (Marceniuk, 2005).

This species represents almost 80% of the category of “catfish” (Ariidae) landed by commercial fisheries in the south eastern region of Brazil (Marceniuk et al., 1995).

Genidens Barbus individuals were observed in estuarine areas on the continental shelf (approximately up to 40m deep) in the states of São Paulo, Paraná and Santa Catarina. This species is common in lagoons and estuarine areas in the state of Rio Grande do Sul and Uruguai, and it’s rare in the continental shelf (Marceniuk, 2005).

Genidens barbus undertakes potamodromous migrations in breeding season and are targeted by unregulated sport fishing (Lopez et al., 2005).

Genidens barbus is limited to the lower Delta, using only the Paraná Guazú as migration route (Bó et al., 2002).

This catfish has particular biological characteristics such as reproductive migrations, parental care and a low number of eggs produced in each spawning. Potamodromous migrations (towards freshwater), takes place in breeding season. This species is a bottom feeder. It is considered a euryhaline fish (it is able to tolerate a wide range of salinity), it enters estuaries and rivers like the Rio de la Plata, to spawn in spring and early summer.

3. Threat data

3.1 Direct threat to the population (factors, intensity)
Mining, fishing industries.

3.2 Habitat destruction (quality of changes, quantity of loss)

3.3 Indirect threat (e.g. reduction of breeding success, by pesticide contamination)

3.4 Threat connected especially with migrations

3.5 National and international utilization
They are targeted by unregulated sport fishing (Lopez et al., 2005). During the migration the species is object of unregulated sport fishing; the parental care behaviour of the species is aggravates the situation as it includes paternal mouthbrooding of eggs and fries.

4. Protection status and needs

4.1 National protection status
The species is not officially considered under any category of threat in Paraguay. This species is classified as Vulnerable under criteria D2, at regional level, in Argentina and Paraguay (Cappato, et al., 2009).

4.2 International protection status

4.3 Additional protection needs
Policies should be established for sustainable use of commercial fish, especially in places where fishing pressure is very high.

5. Range States

Argentina, Brazil.

6. Comments from Range States

Both countries are CMS members and could undertake joint studies through specific concerted actions aimed at the conservation of the species.

7. Additional remarks

8. References

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DRAFT PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

Proposal to add in Appendix I

Zungaro jahu

June 2010

PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. **PROPOSAL:** Inclusion of the **gilded catfish (Eng) apretador, bagre sapo, bagre tosquero, manguruyú amarillo, pirá guazú, zúngaro (Spa) jaú sapo (Por), *Zungaro jahu*, (Ihering, 1898)** in Appendix I of CMS

B. **PROPONENT:** Government of Paraguay

C. SUPPORTING STATEMENT

1. Taxon

1.1 Class: ACTINOPTERYGII

1.2 Order: SILURIFORMES

1.3 Family: PIMELODIDAE

1.4 Genus/Species/Subspecies: *Zungaro jahu,* (Ihering, 1898)

1.5 Common name(s): Pira pitá (Guarani) Salmón de río (Spanish) Salmón (Spanish) Pirapitanga, Piracanjuva (Portuguese)

2. Biological data

2.1 Distribution (current and historical) - see also 5

Rio Parana, Rio Paraguay. Parano Province Platense (Ringuelet, 1975), Great Rivers (Lopez et al., 2008). Lower Paraná, Paraguay, Chaco, Uruguay lower (Abell et al., 2008).

2.2 Population (estimates and trends)

Decreasing.

2.3 Habitat (short description and trends)

The Jau is known in various parts of the Plata Basin. (Lundberg (& LIittmann, 2003).

2.4 Migration (kinds of movements, distance and proportion of the population migrating)

Migratory species represent the outstanding feature of large South American rivers ichthyofauna (Agostinho et al., 2004). This species follows a potamodromous pattern in its migration, it undertakes several and repeated migrations throughout its life (Oldani 1990 and Tablado et al., 1988; Petrere, 1985). Furthermore, in the Parana River, they are perfectly adapted to the geomorphology of the valley and seasonal variations of water level (i.e. they migrate upstream or downstream at any time of year) and reproduction, mainly to keep the geographical position of the populations (Oldani 1990). Tagging studies as a whole, (Bayley, 1973; Bonetto, 1963; Bonetto and Pignalberi, 1964; Bonetto et al., 1971; Bonetto et al., 1981; Tablado and Oldani, 1984; Oldani, 1990; Delfino and Baigún , 1985; Espinach Ros et al., 1998) showed that the species of genera Prochilodus, Salminus, Leporinus, Luciopimelodus, Brycon, Pseudoplatystoma, Piaractus,

Sorubim and Paulicea, shad, golden, bogas, patíes, salmon, surubíes, pacúes , mandubíes and manguruyúes respectively, undertake the most important migrations, in some cases over 1000km.

This species lives in rivers, feeding on fish. Its stock is currently quite low; their capture is considered rare to moderate. (Da Graça, W. J. & Pavanelli, C.S, 2007).

Siluriform species, predator in open water (Ringuelet, 1975).

It makes migration for reproduction. Juveniles develop in the deeper parts of the river main channel.

They are usually found at bottom of rivers (Nakatani et al., 2001).

In is occasionally captured by fishermen in some parts of its distribution (Sverlij et al., 1998). Piscivorous fish, nocturnal hunter. Sexually mature at around 10 kg.

3. Threat data

3.1 Direct threat to the population (factors, intensity)
Fishing industry, Subsistence, artisanal/small-scale fishing, infrastructure development, dams, subsistence use/local trade.

3.2 Habitat destruction (quality of changes, quantity of loss)

3.3 Indirect threat (e.g. reduction of breeding success, by pesticide contamination)
Uncontrolled exploitation of the resource. Very high vulnerability (80.87), based on L max and K (Cheung et al., 2005). Undetermined (Chebez, 1994).

3.4 Threat connected especially with migrations

3.5 National and international utilization
Aquariums, recreational fishing. Sport fishing using lures and live bait, commercial fisheries.

4. Protection status and needs

4.1 National protection status
SEAM (2009), in Paraguay has recognized that this species is listed under the Endangered category.
This species is categorized as Vulnerable - A2acd Criteria at regional level, Argentina and Paraguay (Cappato, et al., 2009).
Minas Gerais (1995): Vulnerable (Reis, et. Al., 2003).
For the State of Paraná it is proposed as VU A2acde (Reis, et. Al., 2003).

4.2 International protection status

4.3 Additional protection needs
Policies should be established by the country for sustainable use of commercial fish, especially in places where fishing pressure is very high.
Legislation, Community management, research actions, sustainable use.

5. Range States

Argentina, Bolivia, Brazil and Paraguay.

6. Comments from Range States

The four countries are CMS members and could undertake joint studies through specific concerted actions aimed at the conservation of the species.

7. Additional remarks

8. References

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