

Giant Otter Species Report

Jessica Groenendijk

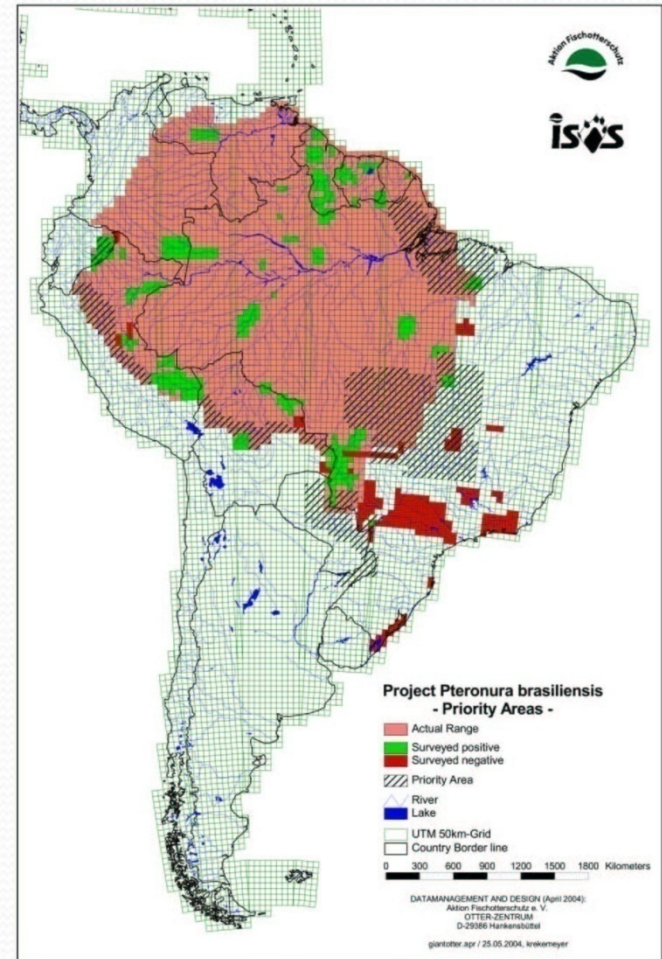
Contributors:

- Helen Waldemarin - Brazil
- Walfrido Moraes Tomas - Brazil
- Miriam Marmontel - Brazil
- Juan Carlos Botello - Colombia
- Javier Diaz - Colombia
- Rob Wallace - Bolivia
- Paul van Damme - Bolivia
- Nicole Duplaix - Guyanas
- Benoit de Thoisy - French Guiana
- Helene Jacques - French Guiana
- Jorge Calvimontes - Peru/Brazil
- Lisa Davenport - Peru
- Sheila Sykes-Gatz - zoos

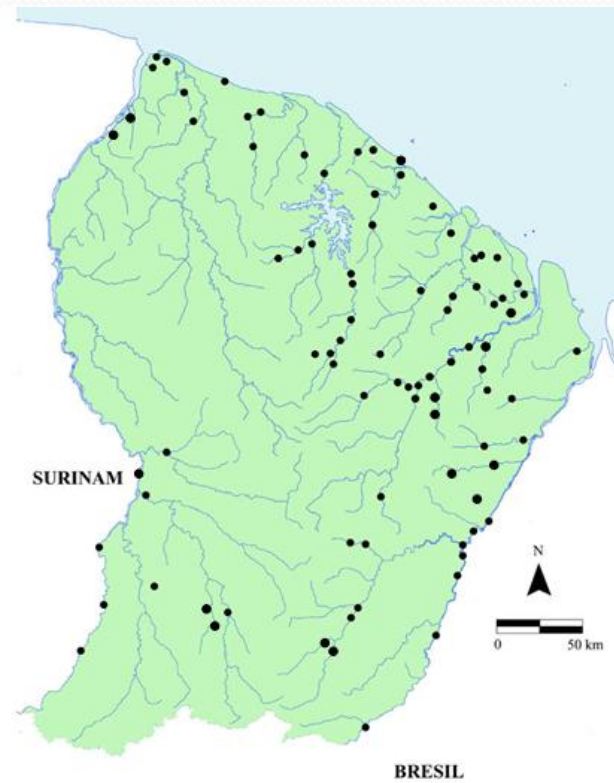


Giant otter distribution and surveys

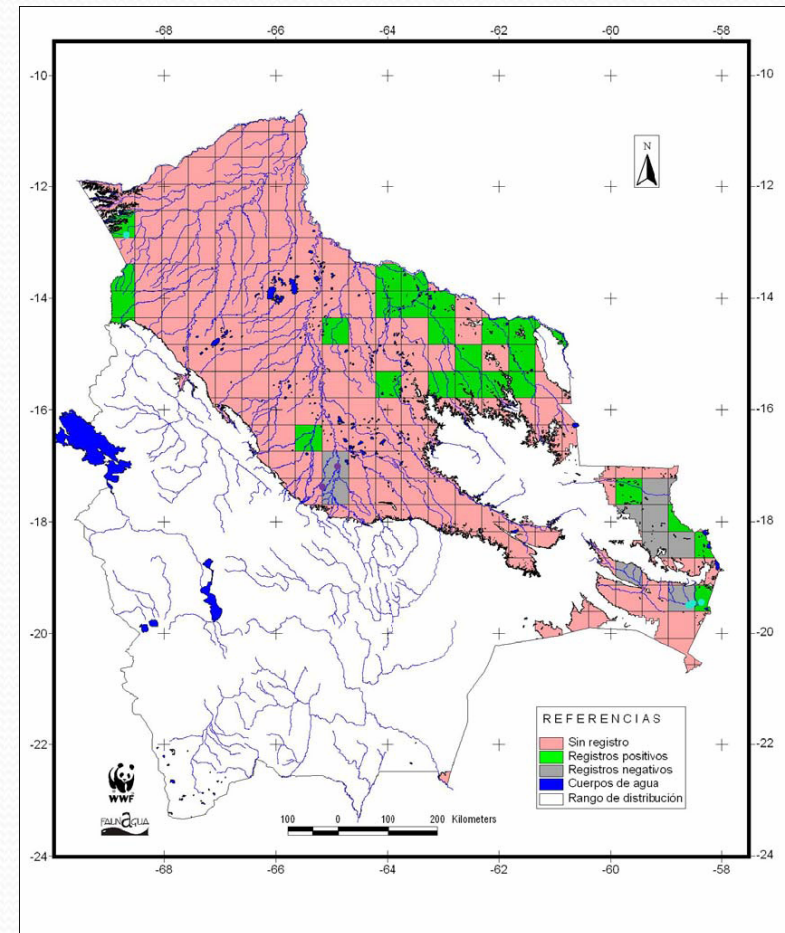
Surveyed (positive and negative) grid squares for the giant otter within its current range of distribution. Priority areas have been updated to include border areas of the estimated species' range, potential corridors between isolated populations and threat areas.



Current distribution
of the giant otter in
French Guiana,
showing recent
sighting locations.



Current and historic distribution of giant otters in Bolivia



Threats during the last 10 years that have affected the species' distribution, with emphasis on current threats

- Destruction of riparian habitats,
- Persecution due to conflicts with fishermen (hunting in Colombia),
- Water pollution (siltation, organochlorines, heavy metals) due to increasing agro-industrialization in the upland watersheds, as well as agriculture and urban development,
- Gold mining, with associated deforestation, hunting, and pollution (mercury and water turbidity),

Threats during the last 10 years that have affected the species' distribution, with emphasis on current threats

- Human population growth near/in protected areas,
- Poorly managed tourism,
- Hydroelectric construction and increased navigation,
- Removal of cubs as pets,
- Possible (future) pelt trade,
- Overfishing.



Giant otter research and activities carried out within the last 4 years

- **Brazil** - Studies in at least 4 different regions of Pantanal (Miranda, Rio Negro, Pixaim and Vermelho Rivers); studies in Amazon (Balbina lake, Emanuela's area, Miriam's area); new study in Tocantins State coordinated by Leandro Silveira (Pro-Carnivoros) - first attempt to capture and radio-tag (implant) of a giant otter . Miriam: Brazilian Pantanal-wide distribution survey, monitoring of populations in Brazilian southern Pantanal, monitoring of populations in Amana Lake (Amana Sustainable Development Reserve), relationship between local communities and the species in the Amana Reserve; Walfrido: mapping species occurrence in the Pantanal, preparing a model of Pantanal giant otter distribution, maps due Feb 2008.

Giant otter research and activities carried out within the last 4 years

- **Bolivia** - FaunAgua: publishing pamphlet on giant otters in the Pantanal for a technical/educated public; technical book on giant otter diet with drawings of all bone parts of 40 fish species of the Pantanal and Amazon, as well as standardized methods and applications, and approaches for studies of giant otter-human conflicts, to be published in Oct/Nov 2007; study of fishermen - giant otter conflicts; diet analysis; published a giant otter chapter in a book on GAP Analysis; mapping of an important GO population and population genetic analysis (Rob) from giant otter fecal samples in the Itenez basin; new GO distribution surveys in the Bolivian Amazon, mostly in northwest and central regions (established strong links with Fundacion Omacha from Colombia); distribution maps and predictive models for giant otter presence (national distribution map almost ready).

Giant otter research and activities carried out within the last 4 years

- **French Guiana** - Benoit: presence/absence surveys in most watersheds, quantitative surveys in 6 focal sites (both disturbed and undisturbed), genetic investigations: improvements and adaptation for otters of classical DNA extraction methods.
- **Peru** - FZS: annual population census in Manu National Park and Tambopata National Reserve, Lisa: PhD (predator/prey, intra-familial).
- **Colombia** - Juan Carlos: distribution in the Amazon and Orinoco rivers, Javier: distribution in the Amacayacu River, distribution and diet of both otter species in the Colombian Amazon, German: reproductive biology study, environmental education in Cali Zoo.
- **Suriname** - otter field study methodology, bio-assessments
- **Guyana** - training biologists, bio-assessments
- **Venezuela** - ? / **Ecuador** - Victor

Existence of programmes of conservation addressing the species

- Conducted environmental awareness campaigns in area of Amanã Lake. In Feb, Mamiraua organized workshop in Manaus to bring together Brazilian GO investigators to discuss research and conservation actions. Locals are aware of presence of species in area, offer information. Some refrain from firing at animals because of work in area.
- Educational activities in French Guiana including publication of colouring booklet in 5 languages; species included as target in a “focal species approach”; as part of the action plan implementation of the CBD, France and local stakeholders identified the GO as target species in two themes: “evaluate the damages and biodiversity loss in relation to anthropogenic disturbances” and “increase knowledge of most sensitive species” .

Existence of programmes of conservation addressing the species

- Suriname - Conservation International Protection Programme
- WCS Greater Madidi Landscape Conservation Program formally includes the giant otter as a Landscape Species. FaunAgua has a national programme supported by WWF. **GO to be named ambassador for conservation in the dept of Beni.**
- Fundacion Biodiversa Colombia has initiated a conservation programme of various threatened Amazon species, including both otters.
- FZS Peru conducts annual census in Manu NP and Tambopata NR. **Guidelines for management of tourism in giant otter habitats, site management plans.**

Main challenges for conservation of the species

- Generating sufficient funds for long-term research and conservation strategies,
- Increasing interest in new hydroelectric projects, and the 'economic model',
- Difficulty of implementing programmes to monitor animals throughout the year, analysis of demography and population viability,
- Mitigating the impacts of gold mining activities (legal and illegal), improving methods of legal mining activities in order to reduce impacts on aquatic ecosystems,
- Reducing conflict with local people,

Main challenges for conservation of the species

- Establishment of protected areas using appropriate natural features (not rivers) as boundaries, thereby fully protecting the species,
- Increasing navigation in major rivers, such as the Paraguay river,
- Initiating an interest from local authorities and communities,
- Maintaining habitat corridors to permit (re)colonisation,
- Protecting areas sufficiently large to guarantee population viability,
- Low natural populations in some areas, use of rivers makes them vulnerable.
- Building up populations to viable numbers

Main challenges for research into the ecology and biology of the species

- Lack of human and financial resources (lake ecology),
- Lack of long-term focus and institutional support,
- Broadening research in order to expand our knowledge base,
- Absence of university in French Guiana, making it difficult to train local people,
- Insecurity due to illegal mining,
- Very poor infrastructure network, limiting access to study sites (this is also an opportunity),

Main challenges for research into the ecology and biology of the species

- Defining the real current extent of distribution,
- Confirming (or denying) existence of different subspecies/subpopulations,
- Response to (mining) pollution, tourism and navigation (direct and indirect),
- The role of disease (parvovirus, distemper) in population dynamics,
- Genetic health, dispersion patterns (role of transients), population viability, ranging behavior,
- Habitat suitability and prediction of colonisation,
- Human - giant otter conflicts.

Giant otters in zoos

- Sheila Sykes-Gatz, keeper of the International Giant Otter Studbook and the OSG Focal Point for Giant Otters in Captivity, reports that from Jan. 1, 2004 until Oct. 5, 2007, 72 cubs were born in 19 litters at four zoos of which 17 cubs (from 7 litters) were successfully reared. This is a 76.4% cub mortality rate, the primary reason being inappropriate enclosure conditions.
- A small population, significant number of animals held singly and in single sex groups, and a small number of animals breeding and rearing cubs successfully still exists.
- Currently there are ca. 30 zoos holding 78 (37.34.7) individuals worldwide.
- Insufficient communication, cooperation, and exchange of animals exist between a significant number of holding institutions.


Giant otter community:

Publication of Habitat in 2005,
www.giantotterresearch.com,

Friends of the Giant Otter newsletter

HABITAT

Arbeitsberichte der
AKTION FISCHOTTERSCHUTZ e.V.



Surveyed positive
Surveyed negative
Actual range
Historical range (additional)
IUCN distribution
Country borderline
River
Altitude above 1,000m

**Surveying and Monitoring Distribution and Population Trends
of the Giant Otter (*Pteronura brasiliensis*)**
Guidelines for a Standardisation of Survey Methods
as recommended by the Giant Otter Section of the IUCN/SSC Otter Specialist Group
by
Jessica Groenendijk, Frank Hajek, Nicole Duplaix, Claus Reuther †, Paul van Damme,
Christof Schenck, Elke Staib, Rob Wallace, Helen Waldemarin, Raphael Notin, Miriam Marmontel,
Fernando Rosas, Galia Ely de Mattos, Emanuela Evangelista, Victor Utreras, Geovanna Lasso,
Hélène Jacques, Keila Matos, Indraneel Roopsind, Juan Carlos Botello

Thank you!

