

CULLING A DELICIOUS INVASIVE FISH SPECIES
IN THE TACANA INDIGENOUS TERRITORY

Name of Product: Paiche, arapaima o pirarucu fish (*Arapaima gigas*)

Name of Producer: Carmen del Emero Fishermen

Location: Carmen del Emero community, Tacana Indigenous Territory, Ixiamas Municipality, Abel Iturralde Province, La Paz Department



Fifteen Tacana fishermen provide additional resources for their families. Rob Wallace/WCS



Paiche, pirarucu or arapaima (*Arapaima gigas*) is an enormous voracious fish native to the broader Amazon, but an invasive species in Bolivia. Rob Wallace/WCS



As the fish is a recent arrival to the waterways of the Tacana Indigenous Territory, fishermen are learning to fish and butcher this abundant resource. Rob Wallace/WCS



Paiche is an adaptable fish, but is currently presented at Gustu using traditional Tacana culinary techniques. Patricio Crooker/Gustu

Conservation Importance: The paiche's (*Arapaima gigas*) native distribution spans most of the Amazon basin, however, the rapids and waterfalls of the Madeira river prevented its presence in Bolivia. Once threatened, in the early 1980's an introduction experiment in a lake in southern Peru resulted in the spread of this invasive species across Bolivia's Madeira basin. Growing up to 200 kg this voracious predator is having a major impact on the native fish populations of Amazonian Bolivia, and from a fisheries perspective it is already economically the most important harvested species.

Cultural Relevance: The Tacana riverine communities along the Beni River are fisherfolk and the commercial sale of fish has always been an important source of income. The invasive paiche fish arrived to Carmen del Emero approximately 10 years ago and became a commonly harvested fish about 4 or 5 years ago, and therefore from a cultural perspective the Tacana are still learning the most effective fishing techniques for this species.

Sabores Silvestres Contact: WCS has worked with the Tacana grassroots organization, Consejo Indígena del Pueblo Tacana (CIPTA), and the Tacana communities in northern La Paz for almost two decades. The second Sabores Silvestres trip on the Beni River resulted in interest from participating restaurants in the purchase of paiche from Carmen del Emero.

The Challenge: As an invasive species, the challenge is to incorporate paiche fishing into the harvest culture of the Tacana riverine communities, because as a massive fish it requires different fishing techniques, and as an invasive species it demands harvest for biological control purposes. The Tacana also need direct relationships with markets as opposed to traditional and less desirable relationships with riverine middlemen who charge extortionate prices for household products.

Economic Impact: As of late December 2018, 15 Tacana families are now benefitting every fortnight from the sale of 150 kg of paiche at \$7/kg directly to two restaurants (Gustu & Jardin de Asia), compared to their previous sales to middlemen on the river at \$1-\$1.5/kg. Thus, the sale of paiche alone has increased benefits by at least 500% and is now providing almost 60% of the average monthly rural income in Bolivia for participating families using about 40% of the time of a standard working month. Since the paiche is an invasive fish, the families can continue to harvest paiche during the off season for the rest of the native Amazonian fish species, providing a year-round income source. Future expansion will involve increasing the number of participating families, adding participating restaurants, and diversifying commercialized species direct to restaurants with appropriate monitoring to ensure sustainability.