



ENVIRONMENTAL  
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AGENCY

Ocean

## **FACING EXTINCTION**

Survival of the Vaquita Depends  
on Eliminating the Illegal Trade  
in Totoaba

NOVEMBER 2017



## INTRODUCTION

The vaquita is the world's most endangered marine mammal, and its existence hangs by the slenderest of threads. With just a few tens of individuals left, its survival depends on the immediate and permanent elimination of all gillnets from the Upper Gulf of California, Mexico.

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### ABOUT EIA

**We investigate and campaign against environmental crime and abuse.**

Our undercover investigations expose transnational wildlife crime, with a focus on elephants and tigers, and forest crimes such as illegal logging and deforestation for cash crops like palm oil. We work to safeguard global marine ecosystems by addressing the threats posed by plastic pollution, bycatch and commercial exploitation of whales, dolphins and porpoises. We reduce the impact of climate change by campaigning to eliminate powerful refrigerant greenhouse gases, exposing related illicit trade and improving energy efficiency in the cooling sector.

Scientists have concluded that the vaquita simply will not survive another season of illegal totoaba fishing, leading to a recent desperate bid to capture and house them in a temporary sanctuary. The capture programme was ended after a precious female vaquita died, leaving the survival of the species dependent on fully protecting the remaining individuals in their natural habitat.

The vaquita is not hunted in its own right – it is collateral damage, killed accidentally in the illegal gillnets set for totoaba fish, the dried swim bladders, or maw, of which are highly sought-after in China. At the 17th Conference of the Parties to CITES in 2016, a series of decisions were agreed aimed at tackling the illegal trade in totoaba, itself an endangered species listed on Appendix 1. Recent actions taken by some countries in response to these decisions have been reported to CITES Standing Committee, and are due to be discussed at its 69th meeting in Geneva at the end of November 2017.

Enforcement efforts have clearly been made, but against the scale of the challenge and scarcity of time remaining, they have been woefully inadequate, even half-hearted. Hundreds of arrests and seizures in Mexico resulted in a mere handful of convictions; after a spate of convictions

in the USA in 2013, no more have been reported since.

In China, the main destination for totoaba maws, official market surveys of more than 5,000 traders apparently failed to find a single totoaba maw and yet it is clear from EIA investigations that totoaba maws are readily available in the country.

The illegal fishing and international trade in totoaba maws continue apace and the vaquita edges substantially closer to extinction with every individual killed in the illegal nets. As a result of this failure to effectively crack down on totoaba poaching and trade, there is a very high chance that we will soon witness the extinction of a second cetacean species on our watch.

An August 2017 trilateral meeting of Mexico, China and the USA promised “immediate” action to tackle the illegal totoaba trade but the window of opportunity for this action to actually happen is rapidly closing. These countries must take all possible steps to eliminate gillnet and other damaging fishing practices in the Upper Gulf of California, dismantle the organised criminal groups that engineer the smuggling of totoaba from Mexico to export destinations and tackle the demand for totoaba maw, particularly in the main market of China.

# STATUS OF THE VAQUITA

The vaquita is the world's smallest cetacean and the most threatened marine mammal with less than 30 animals remaining.<sup>1</sup> Its distribution is restricted to an area of about 4,000 square kilometres in the northernmost Gulf of California, Mexico.

The status of the vaquita and its decline has been well documented over the last 20 years by the Comité Internacional Para la Recuperación de la Vaquita (CIRVA), a group of international experts in the field of cetacean studies whose recommendations have been repeatedly endorsed by the IUCN Cetacean Specialist Group and the International Whaling Commission's Scientific Committee.<sup>2</sup> In February 2017, in its eighth report, CIRVA stated that, as of November 2016, only around 30 individual vaquita porpoises remained.<sup>3</sup> The population has been further reduced since, with one mortality documented at the end of 2016, five dead vaquitas recovered in March and April 2017 and the mature female that died as a result of the vaquita capture programme.<sup>4</sup>

The recent decline in vaquita abundance is undeniably due to their entanglement in illegal gillnets used to catch totoaba fish. Totoaba fishing has been banned since 1975 and in 1977 the species was placed on Appendix 1 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), banning all international trade.<sup>5</sup> Illegal fishing of totoaba is carried out to supply a demand for dried swim bladders, or maw, from the totoaba. The main market is in China, where totoaba maw is sought for its supposed health benefits.

Mexico has made efforts to crack down on illegal totoaba fishing but these efforts have been insufficient in a number of ways and illegal fishing has continued at high levels. A multi-institutional effort led by the Secretariat of Environment and Natural Resources (SEMARNAT) extracted 326 nets from the Upper Gulf over 113 days; more than half (55%) were active nets and eighty five per cent of the derelict gear was for totoaba fishing (gillnets and longlines).<sup>6</sup> The Sea Shepherd Conservation Society (SSCS) reported

that fishermen use legal activities, such as curvina fishing and sport fishing, as cover to gain access to totoaba fishing grounds. Fishing boats often fish illegally at night, leaving at dusk or later and returning to port in the early morning.<sup>7</sup>

In addition to inadequate at-sea enforcement, NGOs have pointed to a number of failings of the fisheries policy in Mexico, including fishing of non-permitted species, overfishing, lack of control or monitoring of fishing effort, inadequate fishing gear and delay in the delivery of permits with alternative gear. Despite agreements to reduce fishing effort in the Upper Gulf, the National Commission of Fisheries and Aquaculture (CONAPESCA) authorised an increase in the fishing effort in the area, by 68 per cent in scale fish and 66 per cent in boats fishing for curvina from 2013 to 2016.<sup>8</sup>

After a two-year partial ban on gillnet fishing Mexico announced a permanent ban in June 2017. However exemptions for mackerel and curvina gillnet fisheries and the failure to prohibit the possession, sale and manufacture of gillnets significantly weaken the effectiveness of the ban and complicate enforcement.<sup>9</sup>

Mexico has also recently announced its intention to legalise totoaba fishing in the Upper Gulf as early as February 2018, as part of an effort to boost tourism.<sup>10</sup> Having demonstrably failed to control the illegal fishing and international trade of totoaba maws, this move will inevitably make enforcement efforts even more challenging.

**“Exemptions for mackerel and curvina fisheries significantly weaken the effectiveness of the gillnet ban.”**

**Gillnet fishing in the Upper Gulf of California**



# REPORTED ENFORCEMENT EFFORTS IN RESPONSE TO CITES DECISIONS ON TOTOABA

At the 17th meeting of the Conference of the Parties to CITES (CoP17, Johannesburg, 2016), Parties adopted Decisions 17.145 to 17.151 on Totoaba in response to global concern over the illegal trade in totoaba and its impact on the critically endangered vaquita. In response to these decisions and Notification 2017/043, Mexico, the USA and China have submitted information to the CITES Secretariat which is summarised in documents submitted for consideration at the 69th meeting of the Standing Committee in November 2017.<sup>11</sup>

## MEXICO

In Mexico, enforcement actions have been carried out by the Procuraduría Federal de Protección al Ambiente (PROFEPA) and the Procuraduría General de la República (PGR). Between April 2015 and 25 July 2017, PROFEPA inspections and monitoring resulted in seizures of 17 large and 200 small boats, 43 vehicles, 996 fishing nets, 469,971kg of fish product, 301 totoabas,

694 maws and the detention of 195 people. PGR enforcement actions resulted in seizures of 108 totoaba and 355 swim bladders, the arrest of 43 people and seven convictions. Sentences included one year imprisonment and fines ranging from 100 to 300 day-fines (i.e. based on 100-300 days of salary).

## CHINA

In response to CITES Decision 17.147, China conducted an enforcement training workshop in December 2016 and an awareness and education campaign in association with "market crackdown activities". According to China's response to Notification No. 2017/043, from 9 January to 9 February 2017 a month long high profile enforcement action to tackle illegal trade in totoaba and bahaba was undertaken, with a focus on major cities of Guangzhou, Shenzhen and Shantou. The action involved 4,217 enforcement officers inspecting 5,331 vendors. No illegal activity related to the two fish species was revealed and no arrests were made. Given the crackdown was announced to traders in advance this is not surprising.

## USA

As a transit country for totoaba trade, the USA has been engaged in various activities, including educating USA Customs and Border Protection officers on identifying totoaba maws, and developing a coordination protocol for enforcement authorities working in seaports, airports and borders in Mexico.<sup>12</sup>

The USA response to Notification 2017/043 lists eleven cases of totoaba seizures, all in 2013. Penalties ranged from fines or forfeits to the value of \$1000 - \$350,000, community service, incarceration (maximum 4 months) and deportation.<sup>13</sup> No information is given for activities since 2013, however a June 2016 testimony by the Chief of Law Enforcement at the US Fish and Wildlife Service stated that between 2014-15 over 530 totoaba maws were seized by authorities and 11 individuals arrested.<sup>14</sup>

Totoaba maws offered for sale to EIA investigators



# THE ILLEGAL TOTOABA TRADE - EIA INVESTIGATIONS

Since mid-2015 EIA has carried out a series of undercover investigations into the illegal totoaba trade, encompassing the source country of Mexico and the major market of China. The investigations reveal the involvement of criminal syndicates at both ends of the supply chain, and persistent illicit trade in totoaba maws despite the value in China declining since 2012 due to oversupply. EIA has submitted detailed information on individuals involved in the trade to enforcement officials in China, Mexico and the USA.

## MEXICO

In Mexico EIA investigators tracked the trafficking of totoaba maws from the Gulf of California coastline where the contraband is landed to the main export hub of Mexico City. Through a series of undercover meetings with traders in 2017 EIA gained insights into smuggling routes and methodologies, as well as connections with other forms of organised crimes, notably narcotics and human trafficking.

Along the coastline totoaba maw are landed at small jetties in Sinaloa and Baja California states. Fishermen poach totoaba all-year round, with a peak between November and March, usually fishing at night to avoid detection. Eight groups reportedly control the catch along the entire western coastline. Once landed, the onward sale of totoaba maws, in frozen or fresh, unprocessed form, to Chinese traders is organised by middlemen with links to drugs cartels which derive payments from the sales.

The majority of the Chinese buyers are recent migrants to Mexico, and originate from the city of Jiangmen in the southern province of Guangdong. They usually trade in a variety of dried marine products, some of which are also illegal such as seahorses, shark fin and sea cucumber. Once the totoaba maw are bought, the Chinese traders move them to processing centres for drying and processing at underground factories. A major hub for processing is Mexicali in northern Baja California

state, but factories are also located in Mexico City, Tijuana and Culiacan.

Once processed the totoaba maws are moved via a network of couriers run by drugs cartels to export locations. Mexico City is a key hub for export due to its flight connections to Asia, as is Tijuana. Couriers are paid to transport the maws inside luggage, with airport officials often bribed according to Chinese traders. Flight routes usually involve transit stops to further avoid suspicion. Commercial courier firms are also used on occasion. The USA, especially California, plays a role in the totoaba trade, both as a source of finance and a transit route between Mexico and China.

## CHINA

EIA's investigations in 2016 revealed the emergence of the coastal city of Shantou, in Guangdong Province, as a major totoaba maw and distribution hub. The centre of the trade is Jinping District, where many shops selling marine products are clustered. One family-owned company operating retail outlets in Guangzhou and Shenzhen told EIA investigators in June 2016 it had 700 totoaba maws in stock at its factory in Shantou. The firm specialises in wholesale trade, supplying maws to buyers in Guangdong, Fujian Province, and the megacities of Shanghai and Beijing.

During the course of its investigations in China EIA noticed that trade in totoaba became increasingly clandestine, especially in the markets of Guangzhou. Rather than openly displaying the maws, they were concealed in back rooms and only brought out for customers to view. This change was attributed to growing attention from the relevant enforcement agencies. Many of the sellers reported a significant price drop for totoaba maws starting in 2012, blaming it on a glut on the market leading to oversupply. The Shantou company claimed it was selling 30 large totoaba maws a month, compared with a peak of 1,000 in 2014. Other sellers were stockpiling their maws, hoping that



Information poster in China warning that the sale and purchase of totoaba maws is illegal

**“The sale of totoaba maws, in frozen or fresh, unprocessed form, to Chinese traders is organised by middlemen with links to drugs cartels.”**

restricted supply would force the price up again. The price of individual maws is set according to size, quality and age. During its investigations EIA observed a price range of up to RMB20,000 (\$3,000) per kilogram for maws weighing 50g, up to RMB170,000 (\$25,000) per kg for those weighing 500g (one-fifth of the value in 2014).

In contrast to the lack of illegal activity reported by China, EIA's monitoring of China-based online groups engaged in the fish maw trade shows that the illegal trade of totoaba in China has continued unabated since EIA last reported on it in September 2016.<sup>15</sup>

Regular monitoring of Facebook, Wechat and other online platforms during the second half of 2016 and throughout 2017 shows that totoaba maws continue to be available for sale, and that the status of totoaba maws remains high, despite the low prices relative to 2012-14. Traders openly post photos on Facebook and advertise on Tencent QQ. Images shared via Wechat by one particular trader known to EIA showed large amounts of totoaba maws reaching China as recently as November 2017. Although the market value of totoaba remains lower compared to five years previously, traders are speculating on future price rises. Perhaps as a result of the depressed value of the totoaba maws, actual consumption of the maws, rather than just collection as an investment, has been reported more frequently in 2017.

Facebook posts demonstrate the inadequacy of the Chinese law protecting totoaba. When one individual posted a photo of 28 totoaba maws that

he had bought and sold in mid-2017, he was advised to keep it quiet as the purchase was illegal, but also advised that it was not prohibited to 'collect' such maws. Indeed on multiple occasions, traders have shared images of totoaba maws but stated that possession and private collection were not illegal.

While the main demand for totoaba maws is clearly in China, one trader claimed to have purchased a large totoaba maw in a Thai market in mid-2017 for 630,000 Thai Baht (approximately \$19,173).

### Auctions Continue

The sale of fish maws advertised as 'Jinqian' – the term used for bahaba and totoaba – also continues via open auctions in China. Since EIA's last report in September 2016, the artron.net database records 13 Jinqian maws in three separate auctions.

One 500g totoaba maw was auctioned on 8th June 2017 (World Oceans Day) in Beijing, however the maw did not reach the minimum bid of RMB 150,000 (\$22,632).<sup>16</sup> In July 2017, ten Jinqian maws were auctioned in Hangzhou, Zhejiang, for RMB966,000 (\$145,755).<sup>17</sup> The lack of long tubules suggests these were bahaba maws, however none of the auctions documented any form of permit or proof of legality (which is required for bahaba as a Class II protected species).

While it is not possible to confirm species from an online image and it is well known that fake totoaba and bahaba maws are in the market, the fact that these auctions continue implies an ongoing lack of awareness of the illegality of the trade.

### Fish maw labelled as totoaba auctioned on 8th June 2017 in Beijing



# CONCLUSIONS AND RECOMMENDATIONS

## Enforcement efforts to date have failed to stop illegal totoaba fishing and trade, and as a result we are facing the extinction of the vaquita.

CITES Decision 17.147 states “Parties should ... eliminate supply of and demand for totoaba, and increase law enforcement measures to prevent and address illegal fishing and trade.” EIA acknowledges the efforts of Mexico, China and the USA in this regard but it is very clear that the supply of and demand for totoaba has not been eliminated, or even reduced. CIRVA’s May 2017 report states: “it is clear that illegal fishing for totoaba is rampant throughout the vaquita’s range”. Likewise, EIA and other investigations reveal an ongoing demand for and sale of totoaba maws in the Chinese market.

**At the 69th Meeting of the Standing Committee, CITES Parties must ensure that the illegal trade of totoaba, a CITES Appendix 1 listed species, does not bring about extinction of the vaquita, also listed on CITES Appendix 1. EIA urges the Standing Committee to request a verbal update from Mexico, China and the USA on recent actions to counter the illegal totoaba trade and recommends the following:**

- Mexico, China and the USA substantially increase coordinated intelligence-led enforcement efforts including transnational investigations resulting in prosecutions with appropriate penalties and dismantling of criminal syndicates responsible for the totoaba trade;
- All Parties with dried seafood markets carry out regular monitoring to ensure totoaba products are not entering the market;
- All Parties consider immediate crackdowns in totoaba markets, including online markets, resulting in seizures, arrests and prosecutions, especially in the main market of China;
- All Parties ensure that penalties for the possession, purchase and sale of totoaba maws are sufficient to deter repeat offenses;
- Mexico, China and USA submit a report on implementation of the above recommendations in time for SC70 to consider appropriate measures.

**Mexico has a responsibility to fully protect the last remaining vaquita in the wild and ensure no further mortalities. EIA recommends that Mexico:**

- Establish a permanent navy patrol in the area to prevent illegal fishing, alongside a permanent scientific mission to carry out acoustic monitoring and photo identification of the vaquita population;
- Expand the multi-institutional programme and develop new technologies to detect and remove fishing gear from the Upper Gulf;
- Continue the ban on totoaba fishing and amend the gillnet ban to eliminate exemptions for mackerel and curvina fisheries;
- Ban the production, sale and possession of gillnets in the area of the Upper Gulf;
- Substantially increase enforcement efforts resulting in prosecutions and dismantling of criminal networks responsible for facilitating the totoaba trade;
- Make public information regarding the location of fishing boats (including tracking and drone findings) and encourage citizen monitoring programmes;
- Engage local communities to develop sustainable fishing practices and alternative economic opportunities, and a fair and transparent system of compensation to fishermen in the short to medium-term; and
- Fast-track efforts to deploy alternative vaquita-safe and sustainable fishing gear.



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## REFERENCES

1. Ninth Meeting of the Comité Internacional para la Recuperación de la Vaquita (hereafter CIRVA-9), available at <http://www.iucn-csg.org/wp-content/uploads/2010/03/CIRVA-9-FINAL-MAY-2017.pdf>
2. For example see IWC, 8 July 2016 <https://iwc.int/without-action-the-vaquita-will-be-gone-the-second>
3. Eighth Meeting of the Comité Internacional para la Recuperación de la Vaquita (CIRVA-8) Southwest Fisheries Science Center, Nov 2016. Available at <http://www.iucn-csg.org/wp-content/uploads/2010/03/CIRVA-8-Report-Final.pdf>
4. CIRVA 9, *ibid.*
5. *Totoaba macdonaldi*. CITES Appendix I. <https://www.cites.org/eng/app/appendices.php>
6. This effort is lead by SEMARNAT and integrated by the National Institute of Ecology and Climate Change (INECC), the Navy (SEMAR), PROFEPA, the National Commission of Natural Protected Areas (CONANP), The National Commission of Fisheries and Aquaculture (CONAPESCA), SSCS, the World Wildlife Fund (WWF-Mexico), the Whale and Marine Science Museum, the Secretariat of National Defense (SEDENA), Parley for the Oceans, World Animal Protection and Alternative Fishing of Baja California (PESCA ABC, a local fishermen NGO who collaborates with 40 fishers who search for the abandoned gear). Pers. Comm. Lorenzo Rojas Bracho 20 November 2017.
7. Report from SSCS contained in CIRVA 9, *ibid.*
8. Comarino, Greenpeace, Teyeliz, August 2017. *Vaquita Marina: The decline of a species due to government neglect*, available at: [http://m.greenpeace.org/mexico/Global/mexico/Docs/2017/oceanos/reporte-vaquita-version\\_ingles.pdf](http://m.greenpeace.org/mexico/Global/mexico/Docs/2017/oceanos/reporte-vaquita-version_ingles.pdf)
9. CIRVA 9, *ibid.*
10. [http://m.milenio.com/estados/totoaba-pesca\\_mexico-vaquita\\_marina-alto\\_golfo\\_california-santuario-turismo\\_0\\_1045695795.html](http://m.milenio.com/estados/totoaba-pesca_mexico-vaquita_marina-alto_golfo_california-santuario-turismo_0_1045695795.html)
11. SC69 Doc. 65.1. (Report of the Secretariat) and SC69 Doc. 65.2. (Implementation of Decisions 17.145 to 151 on *Totoaba (Totoaba macdonaldi)*), available at <https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-65-01.pdf> and <https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-65-02.pdf>
12. SC69 Doc 65.1, *ibid*
13. SC69 Doc 65.1, *ibid*
14. <https://www.fws.gov/le/pdf/ChiefWoodyOralStatementFINAL6-9-16.pdf>
15. Collateral Damage: How illegal trade in totoaba swim bladders is driving the vaquita to extinction. Available at: <https://eia-international.org/wp-content/uploads/EIA-Collateral-Damage-FINAL-mr.pdf>
16. <http://auction.artron.net/paimai-art0066581832/>
17. <http://auction.artron.net/paimai-art5109334894/>



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