

## DEEP-SEA TRAWLING

### The destructive nature of deep-sea trawling (infographic)

While some may celebrate World Fisheries Day on November 21, at One Green Planet, we feel that it's a great time to really evaluate the toll that fishing takes on the environment.

It is estimated that over 70 per cent of all marine fisheries have been exploited, overexploited or have fully collapsed, and 90 per cent of vital ocean apex predators have disappeared.

There are a number of reasons that these saddening statistics exist. They include the death of animals caught in bycatch, fishery mismanagement, overfishing, unregulated fishing and habitat destruction.

Aside from shark finning, the dolphin slaughters in Peru and

Japan, and "scientific whaling" (as the Japanese government insists it is, but we all know better), deep-sea trawling has one of the most destructive effects on the marine ecosystem.

Check out the infographic at <http://www.onegreenplanet.org/animalsandnature/the-destructive-nature-of-deep-sea-trawling-infographic/>.

It offers an easy-to-understand overview of the damaging effects of this fishing practice.

The infographic was originally posted on Penelope Bagieu's blog and translated by Le Huffington Post.

The graphic was then subsequently published in its translated version on The Huffington Post.

Source: *One Green Planet*

## FRESHWATER SPECIES

### Fish that lay eggs out of the water

The fish *Copella arnoldi* commonly called the splash tetra or splashing tetra, due to its unique reproductive behavior. That is, it lays its eggs outside water. It is one of few species of fish in the world known to do so.

When a male is ready to mate, it takes up position in the water below an overhanging leaf. It does a little display, and if a female is interested, she will sidle up to him. Then, they will leap out of the water together. They latch onto the underside of a leaf with their fins.

The female releases six to eight eggs and the male quickly fertilizes them, before they fall back into the water. The pair repeat this process several times until they have deposited about 200 eggs onto the leaf.

The male then hides in aquatic vegetation near the leaf, where he keeps an eye on the eggs.

He defends the territory and periodically splashes the eggs with his tail fin (which is asymmetrical, most likely for this purpose) to keep them moist.

When the fry hatch, after about 48 hours, they fall into the water, where they hide as best they can.

Splash tetra live in slow-moving tributaries of the Amazon and other large South American rivers, especially in Guyana and Venezuela.

The fish grow to a length of about 2.7 in (7 cm) and have a life expectancy of about three years.

Source: *National Geographic* (<http://newswatch.nationalgeographic.com/2013/09/27/fish-that-lay-eggs-out-of-the-water-freshwater-species-of-the-week/>)

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## ORGANIZATIONAL PROFILE

### ATDEPA: The Tunisian Association for the Development of Artisanal Fisheries



The Tunisian Association for the Development of Artisanal Fisheries (ATDEPA) is a civil society organization that brings together fisheries officials, scientific researchers and artisanal fishers. It was created in 2011 as a non-profit development association under Tunisian law. It is, therefore, not so much an organization of fishers, but, rather, an organization for fishers. ATDEPA conducts studies, organizes workshops, undertakes training, raises awareness and advocates for responsible fishing practices, amongst other activities.

The aim of ATDEPA is to improve the sustainable livelihoods of artisanal fishing communities, based on respect for the ecosystems that they exploit. ATDEPA also seeks to engage positively with fishing communities to help them improve their activities, notably

through fisheries management and coastal-zone development.

ATDEPA's mission is to engage in defining fisheries policy in ways that include: the responsible participation of artisanal fishers in the sustainable management of coastal ecosystems on which



their livelihoods depend; and further understanding the socioeconomic and demographic characteristics of the fishery system so as to identify approaches to fisheries management relevant to the Tunisian context.

In Tunisia, artisanal fishing is seen as a semi-subsistence activity, employing traditional fishing methods and keeping within environmental limits. The government has provided both legal and financial

frameworks to develop the sector into a semi-industrial sector. Today, artisanal fishing employs 70 per cent of the people active in fishing—around 42,000 people—and lands around 50 per cent of the catch by value. Women comprise around three per cent of the workforce in fishing, mainly as shellfish collectors.

ATDEPA is a partner in a number of local, regional and international initiatives. These include an innovative project to promote sustainable fishery products from the Cap Negto-Cap Serrat protected coastal and marine area, financed within the framework of the Italy-Tunisia I EVP CT technical co-operation transboundary partnership programme, involving regions of Sicily and Tunisia.

ATDEPA is also a partner in an initiative to establish a North African platform

for associations and organizations of professionals in the agriculture and artisanal fisheries sectors. This initiative is supported by the Regional North African programme of the Food and Agriculture Organization of the United Nations (FAO) and by the WWF North African Office, and was launched in September 2013.

ATDEPA is a member of the African Confederation of Professional Organizations of Artisanal Fishers (CAOPA) and the World Forum of Fish Harvesters and Fishworkers (WFF). The organization has participated in various West and North African regional meetings, and joined the WFF delegation to the intergovernmental Technical Consultations organized by FAO to negotiate content and text for the International Guidelines to Secure Sustainable Small-scale Fisheries in the context of food security and poverty elimination.

For more information (in French): <http://artisanalfishing.org.tn/presentation/>

## Global Aquaculture Production Statistics

According to data newly released by the Food and Agriculture Organization of the United Nations (FAO), world aquaculture production of food fish reached 62.7 mn tonnes in 2011, up by 6.2 per cent from 59 mn tonnes in 2010. The estimated value of farmed food fish is US\$130 bn. Farmed aquatic algae production in 2011 was 21 mn tonnes, worth \$5.5 bn. The 2010 world production level in the new data release is lower than in the previous data release, due largely to the downward adjustment of 2010 production by India, the world's second-largest aquaculture producer. Aquaculture contributed 40.1 per cent to the world total fish production and almost all the seaweed production (see Table 1).

In 2011, Thailand and Japan suffered from great losses caused by catastrophic natural disasters. Thai aquaculture production dropped by 0.28 mn

tonnes (22 per cent) from its 2010 level, and Japan by 0.16 mn tonnes (23 per cent). A few other global major producers, such as Myanmar, the United States (US) and Malaysia, and regional major producers, such as Uganda, also experienced negative growth in aquaculture output in 2011 due to various reasons. But the majority of producing countries and regions enjoyed positive growth in aquaculture production in 2011.

Globally, the status of statistics reporting to FAO on aquaculture is a mixed picture. While many members continued to improve national statistics collection and reporting, the number of non-reporting countries increased among European Union members, and a few major producers continued to ignore their data reporting obligation. The nature of 2011 aquaculture data in the new

release are of four major types:

- reported by national authorities in responding to FAO data questionnaires;
- retrieved (with statistics details) from government sources for the non-reporting or incomplete-reporting countries;
- retrieved (with total production without breakdown details) from government sources, and estimated by FAO for splitting to the major cultured species or species groups using additional information, for the non-reporting countries; and
- estimated, using information available from other sources, for non-reporting countries.

In 2011, the top 20 producers who produced 95 per cent of world farmed food fish are China, India, Vietnam, Indonesia, Bangladesh, Norway, Thailand, Egypt, Chile, Myanmar, Philippines, Brazil, Japan, Korea (RO),

US, Taiwan (POC), Ecuador, Malaysia, Spain and Iran. The improvement in the ranking position of Norway, Chile and Brazil among the top producers is noteworthy.

The number of cultured species registered as "species items" in the new data release further increased from 541 in 2010 to 559. They include 346 fin fishes, 62 crustaceans, 102 molluscs, six amphibians and reptiles, 34 aquatic algae and nine other aquatic invertebrates. Such an increase is more the result of data quality improvement than species diversification at the real production level.

The changes in world aquaculture production during 1970-2011 are summarized broadly in Table 2 below.

—Excerpts from *Global Aquaculture Production Statistics for 2011*. FAO

**Table 1: Contribution of aquaculture to the world total fish production\* (mn tonnes, excluding aquatic plants)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Aquaculture (mn tonnes)	34.6	36.8	38.9	41.9	44.3	47.3	49.9	52.9	55.7	59.0	62.7
Contribution to total (per cent)	27.6	28.8	30.6	31.1	32.4	34.4	35.5	37.0	38.2	39.9	40.1
Capture (mn tonnes)	90.7	91.0	88.3	92.7	92.5	90.2	90.7	90.1	90.0	89.0	93.5
Contribution to total (per cent)	72.4	71.2	69.4	68.9	67.6	65.6	64.5	63.0	61.8	60.1	59.9
Total fish production	125.4	127.8	127.2	134.6	136.8	137.5	140.7	143.0	145.7	148.0	156.2

\* Total fish production includes production destined for human consumption and for non-food uses (such as reduction for fishmeal and oil, etc.).

Source: FAO

**Table 2: World aquaculture production of food fish\* by continent (mn tonnes)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Share in 2011 (per cent)
Africa	0.4	0.5	0.5	0.6	0.6	0.8	0.8	0.9	1.0	1.3	1.4	2.2
Americas	1.7	1.8	1.9	2.1	2.2	2.4	2.4	2.5	2.5	2.6	2.9	4.7
Asia	30.3	32.4	34.2	36.9	39.2	41.8	44.2	47.0	49.5	52.4	55.5	88.5
Europe	2.1	2.0	2.2	2.2	2.1	2.2	2.4	2.3	2.5	2.5	2.7	4.3
Oceania	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Total	34.6	36.8	38.9	41.9	44.3	47.3	49.9	52.9	55.7	59.0	62.7	
Annual growth rate (per cent)	6.8	6.3	5.8	7.7	5.7	6.8	5.6	6.0	5.2	5.9	6.2	

\* Food fish = fishes, molluscs, amphibians, reptiles (excluding crocodiles) and other aquatic animals (such as sea cucumber, sea urchin, etc.) for human consumption.

Source: FAO

## INFOLOG: NEW RESOURCES AT ICSF

ICSF's Documentation Centre ([dc.icsf.net](http://dc.icsf.net)) has a range of information resources that are regularly updated. A selection:

### Publications

#### An Ecosystem Approach to Fisheries (EAF)

[http://www.icsf.net/images/EAF\\_final\\_26Nov13\\_1.24pm.pdf](http://www.icsf.net/images/EAF_final_26Nov13_1.24pm.pdf)

#### Small-scale Fisheries: Their Contribution to Food Security, Poverty Alleviation and Sustainability

[http://www.icsf.net/images/ssf/SSF\\_BROCHURE\\_English.pdf](http://www.icsf.net/images/ssf/SSF_BROCHURE_English.pdf)

#### Draft Voluntary Guidelines for Securing Sustainable Small-scale Fisheries

[http://www.icsf.net/images/ssf/ENGLISH%20\\_SSFguidelines\\_leaflet.pdf](http://www.icsf.net/images/ssf/ENGLISH%20_SSFguidelines_leaflet.pdf)

Aguilar-Manjarrez, J. & Crespi, V. 2013.

*National Aquaculture Sector Overview map collection. User manual / Vues générales du secteur aquacole national (NASO). Manuel de l'utilisateur.* Rome, FAO. 65 pp.

The National Aquaculture Sector Overview (NASO) map collection aims to assist FAO Members to inventory and monitor aquaculture, using Google Earth and Google Maps technology. The collection has the potential to be used for a number of purposes, such as monitoring the status of, and trends in, aquaculture development and addressing site selection and zoning issues. This user manual, available as a bilingual document in English/French, is meant to facilitate the completion of the Microsoft Excel form needed to create the NASO maps. The manual is intended for all FAO Members that report aquaculture statistics to FAO and to inventory and monitor aquaculture in their respective countries and territories. The NASO map collection is being developed by the Aquaculture Branch in collaboration with the Fisheries and Aquaculture Statistics and Information Branch of the FAO Fisheries and Aquaculture Department.

Source : FAO

### Videos

#### Documentaries about Overfishing

This Web page is an overview of some of the best documentaries, movies and video shorts on overfishing and other harmful (for the fish, other wildlife, habitat and greater environment) fishing practices. Links go to the official website where available. Often these websites have trailers or even the full documentary in streaming video (follow the links labelled with "stream").

Source : [http://overfishing.org/pages/Documentaries\\_about\\_overfish.php](http://overfishing.org/pages/Documentaries_about_overfish.php)

#### Citizen Voices do Matter !

"Community-centred Governance Using Climate Change Score Card" is an attempt to encapsulate the experience of developing a social accountability tool called "climate change score card". The tool was developed through a project in the Gulf of Mannar, Tamil Nadu, India. This film documents the process of developing the score card.

Source: [www.pacindia.org](http://www.pacindia.org)

## FLASHBACK

### Looking at aquaculture

Today, over 44 per cent of global fish production for direct human consumption originates from aquaculture. However, even as we recognize the potential role of aquaculture and mariculture in contributing to employment and food security, there are several questions that need to be answered: Can aquaculture and mariculture practices be undertaken without displacing farming and fishing communities, without destroying habitats, and without reducing biodiversity? Can aquaculture help to reduce pressure on coastal fisheries by providing alternative employment? Can it contribute to food security and



poverty alleviation? Can aquaculture ensure decent conditions of work and fair wages to the workers in the sector? Is there anything that can truly be called 'sustainable aquaculture'? These are some of the questions that are being asked by fishing, farming, and other communities in coastal and inland areas where aquaculture is being practised.

Undeniably, aquaculture has made rapid strides in increasing production during the last couple of decades. Analysts predict a future of continuing growth, intensification and diversification of aquaculture. Yet, disturbingly, there is very little conclusive information on the positive social and environmental impacts of aquaculture on rural communities. In such a situation, it is difficult for rural communities to take a position on aquaculture development. The countries that are investing in rapid development of aquaculture should ensure that aquaculture does indeed contribute to sustainable development, and that it does not leave in its wake an abused labour force, swathes of degraded mangrove forests, contaminated inland and coastal waters, threats to biodiversity from the introduction of exotic species, and destruction of natural habitats.

We would argue for a perspective that places fisheries and aquaculture within the framework of the human development of rural communities. In this context, aquaculture development should be subject to checks and balances to ensure that it is not reduced to a mere investment activity by a few who have access to capital and can thus extract all benefits of nature, at the expense of local communities and their livelihood options.

— from the Comment in SAMUDRA Report No. 45, November 2006

## ANNOUNCEMENTS

### MEETINGS

#### Resumed Session of the Technical Consultation on International Guidelines on Securing Sustainable Small-scale Fisheries

3 - 7 February 2014, Rome, Italy

This session will review the draft International Guidelines on Securing Sustainable Small-scale Fisheries (IGSSF) being developed by the Food and Agriculture Organization of the United

Nations (FAO) and also discuss the follow-up towards its implementation.

#### COFI - Sub-Committee on Fish Trade - 14th Session (FI-709-14)

24 - 28 February 2014, Bergen, Norway

### WEBSITES

#### [www.standardsmap.org](http://www.standardsmap.org)

Standards Map is the web-based portal of ITC's Trade for Sustainable Development (T4SD) programme and a partnership-based effort to enhance transparency

on voluntary standards and to increase opportunities for sustainable production and trade.

#### <http://vdb.eurofish.dk/>

A visual database of value-added products consumed in Europe. The website provides information on aquaculture and tuna products.

#### <http://www.marineregions.org/>

Maritime boundaries are important for many applications. In biogeography, for example, a layer of exclusive economic

zone (EEZ)-polygons could be used for the creation of species distribution lists per country. Up to now, there is no global public domain cover available. Therefore, the Flanders Marine Institute decided to develop its own database.

The database includes two global IS-layers: one contains polylines that represent the maritime boundaries of the world countries, the other one is a polygon layer representing the EEZ of countries.

The database also contains digital information about treaties.