



# FISHING WITH POISON

## CYANIDE FISHING IN THE PHILIPPINES

**F**ish are being "stunned" with cyanide in the Philippines, to be later exported to other countries for aquarium display. However, this use of cyanide kills more fish than needed, and has various other negative impacts on the ecosystem. This practice is already illegal, but laws against cyanide fishing are poorly enforced.

This paper examines the negative effects of cyanide fishing, and suggests possible policy responses.

### Recommendations

- increasing cyanide testing of aquarium fish ready for export
- increased incentives for aquarium fish caught using gillnets

### What is cyanide fishing?

Divers squirt cyanide dissolved in seawater onto fish, or surfaces fish come into contact with. For example, cyanide may be squirted on coral or fish traps. The purpose of exposing fish to cyanide is to temporarily "stun" them, so they are kept alive for aquarium use.



### What's the problem?

Cyanide fishing has many disadvantages. Firstly, the number of fish that die after exposure to cyanide far exceeds the number of fish that make it to aquariums:

- 75% of fish die within hours of exposure to cyanide
- 30% of fish die during transport

To make up for these huge rates of mortality, fishers have to poison way more fish than they need—making cyanide fishing a very wasteful practice.

Secondly, cyanide fishing has a lot of by-catch. Many non-targeted marine fish and invertebrates come into contact with the cyanide released by fishers, and often die as a result.

Thirdly, cyanide fishing damages corals. The direct application of cyanide onto coral causes potentially lethal bleaching. Fish exposed to cyanide often seek refuge in coral as well, with the fishers resultantly destroying coral to access their catch.

### Who are the major players?

The largest markets for aquarium fish caught via cyanide fishing are: **The United States, United Kingdom, Germany, and France.** The Philippines, along with Indonesia, help contribute between 50-60% of aquarium fish exported worldwide.

### If cyanide fishing is so bad, why has nobody stopped it?

Most countries have tried.

Cyanide fishing is illegal in many places—including the Philippines. But it is still practiced in many developing countries (like the Philippines) due to high levels of corruption, and the poor capability of law enforcement against illegal fisheries.

For fishers, the money cyanide fishing brings in is too great to pass up. Aquarium fish are valued at \$500 USD a kilogram or more, which is a much greater value than fishers get for fish caught for food.

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# So what can the Philippines do?

## Award incentives for gillnet fishing

-Filipino export companies have begun paying more for aquarium fish caught with gillnets, policy changes must ensure more companies do this

-gillnets can catch live fish without the negative chemical effects of cyanide

-less than 10% of fish die in gillnets, as opposed to 75% of fish exposed to cyanide

-most fishers believe gillnets are less efficient, and will not switch from cyanide without a monetary incentive



## Increase cyanide testing

-funding is needed to re-open cyanide-testing labs for aquarium fish headed to export

-these labs helped deter cyanide fishing in the nineties

-1996: 43% of aquarium fish tested for export had trace amounts of cyanide

-1999: 8% of aquarium fish tested for export had trace amounts of cyanide

-cyanide testing in 90s was slow, expensive, and required the sacrifice of some fish

-cyanide testing today can be fast, cheap, and harmless to the fish

-cyanide-testing labs will help deter cyanide fishing once again, with less required funding



## References

- Bruckner, A., & Fisheries, N. O. A. A. (2013). Cyanide Fishing Makes a Comeback. *Aquarium Fish, Tropical Fish, Freshwater and*.  
Rubec, P. J., Cruz, F., Pratt, V., Oellers, R., McCullough, B., & Lallo, F. (2001). Cyanide-free net-caught fish for the marine aquarium trade. *Aquarium Sciences and Conservation*, 3(1-3), 37-51.  
Vaz, M. C., Rocha-Santos, T. A., Rocha, R. J., Lopes, I., Pereira, R., Duarte, A. C., ... & Calado, R. (2012). Excreted thiocyanate detects live reef fishes illegally collected using cyanide—a non-invasive and non-destructive testing approach. *PLoS one*, 7(4), e35355.

## Pictures

- Cyanide Fishing Makes a Comeback. (n.d.). Retrieved November 24, 2014, from <http://www.fishchannel.com/fish-magazines/freshwater-and-marine-aquarium/august-2008/cyanide-aquarium-fish.aspx>  
Gill net illustration - Michigan Sea Grant. (n.d.). Retrieved November 24, 2014, from <http://www.miseagrant.umich.edu/explore/fisheries/know-your-nets/gill-nets/gill-net-outline/>  
People Inside Aquarium. (n.d.). Retrieved November 24, 2014, from <http://www.publicdomainpictures.net/view-image.php?image=9105&picture=people-inside-aquarium>  
Doctor of Nursing Practice | Ohio State Online Programs. (n.d.). Retrieved November 24, 2014, from <http://online.osu.edu/program/doctor-nursing-practice>