



# YASMIN MODASSIR

1953-2016 , INDIA

Researcher at Dhempe College of Arts and Science, at Goa University (India).

Her research interests were broad: she did research in limnology, fisheries, mollusks, ecotoxicological assays, or conservation strategies for mangroves.

She was a founder member of All Goa Association of Zoologists, and member of many scientific societies in India.

## HERSTORY

In 2002, Yasmin received the “Environmentalist of the year” award by the International Board of National Environmental Science Academy.

# EFFECT OF SALINITY ON MERCURY TOXICITY



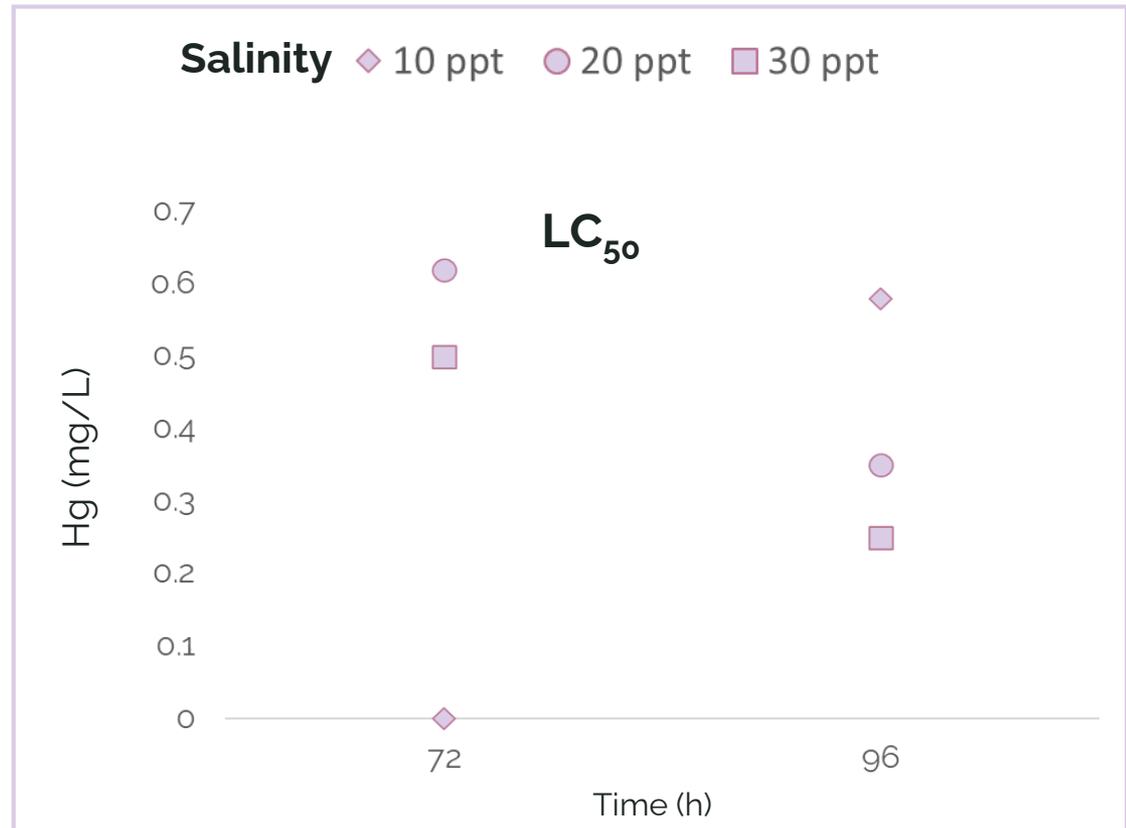
*Polymesoda erosa* (H.T., Cheng\_CC)

The mangrove clam, *Polymesoda erosa*, is an economically important species inhabiting mangrove mud. It supports a high annual fluctuation in salinity (7 to 22 ppt). Yet, under high salinity conditions, higher ventilation rates may increase Hg uptake, and thus, its toxicity.

**Example:** Increasing salinity, at lower Hg concentrations, more individuals died (the toxicity of Hg increased).

**LC<sub>50</sub>:** concentration at which 50 % of the individuals die.

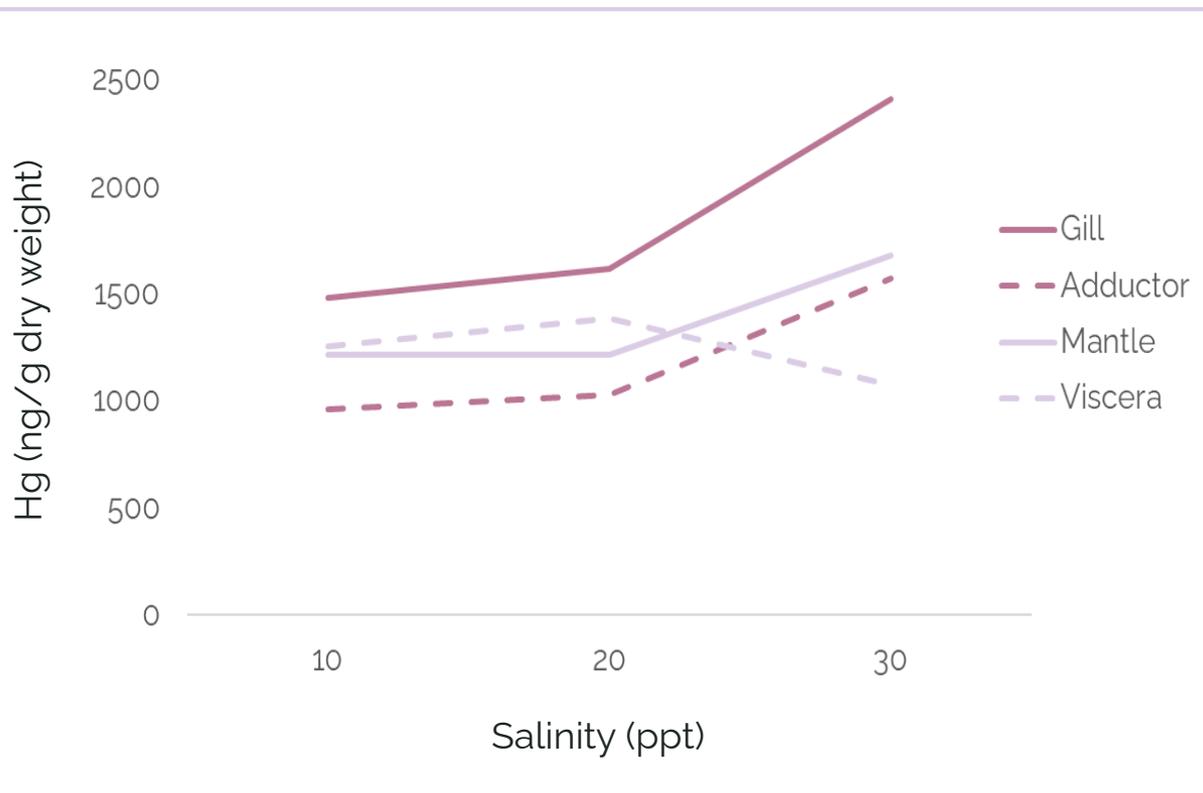
Yassmin Modassir, (2000).  
Asian Fisheries Science.



# EFFECT OF SALINITY ON MERCURY TOXICITY

**Bioaccumulation:** net accumulation of a contaminant in an organism from all environmental sources.

**Accumulation** in gills can be caused by higher adsorption on the gills' external integument. High water intake due to osmoregulatory activities at higher salinities would favor faster Hg accumulation in the body parts.



## Example:

Hg accumulation in different body parts in *P. erosa* increased with salinity.

Yassmin Modassir, (2000).  
Asian Fisheries Science.

# RELEVANT CONTRIBUTIONS

**Modassir, Y.** (1990). Ecology and production of a benthic bivalve *Meretrix casta* (Chemnitz) in the Mandovi estuary, Goa. *Indian Journal of Marine Sciences* 19, 125-127.

**Modassir, Y.** (2000). Effect of salinity on the toxicity of mercury in mangrove clam, *Polymesoda erosa* (Lightfoot 1786). *Asian Fisheries Science* 13, 335-341.

**Modassir, Y.** (2011). Fish species diversity and its potential for angling fishing in Goa- an overview. *Indian Journal of Applied and Pure Biology* 26(2), 291-304.

**Modassir, Y.,** Ansari, A. (2011). Health and Hygiene status of the fisherwomen in the state of Goa. *Biological forum – An international Journal* 3, 57-60.

**Modassir, Y.,** Ansari, A. (2011). Plankton community of the hypersaline salterns of Goa, India. *Biological forum – An international Journal* 3, 78-81.

LOOKING  
FOR MORE?

**You can find more information about her story and research at:**

[https://en.wikipedia.org/wiki/Yasmin\\_Modassir](https://en.wikipedia.org/wiki/Yasmin_Modassir)

<https://www.navhindtimes.in/2016/10/09/goanews/yasmin-modassir-a-versatile-personality/>