

CYANIDE FISHING: CAN MARINE FISH BE TESTED FOR EXPOSURE TO CYANIDE?

THE THREAT OF CYANIDE FISHING

Coral reefs face a variety of human-induced stressors. Illegal fishing practices, including the use of **cyanide (CN) in the Indo-Pacific** are significant stressors.

A reliable test to detect if a fish was caught with cyanide has long been a goal to stop this illegal activity, but little is known about how long CN or its metabolite thiocyanate (SCN) remain in marine fish after being exposed to CN.

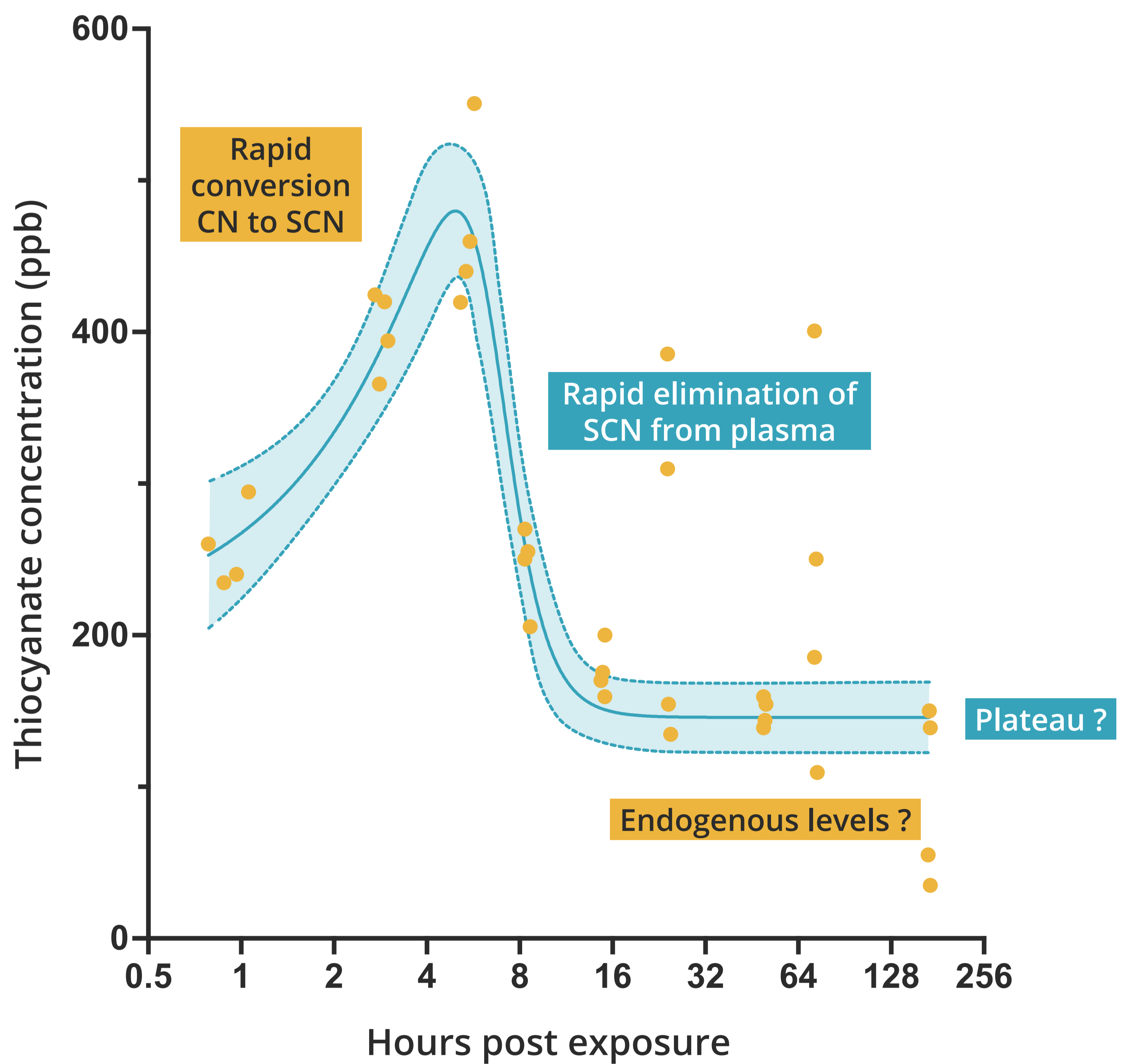


We exposed the clownfish *Amphiprion clarkii* to CN or SCN and then measured the concentration of SCN in fishes' blood plasma and holding water.



CYANIDE IS QUICKLY METABOLIZED

Our study demonstrates that **CN is metabolized within hours to SCN and that SCN is eliminated rapidly from the blood plasma** (within days). Questions remain as to when SCN concentrations reach endogenous levels.



CAN FISH BE TESTED?

Tests examining blood plasma for SCN levels are likely only viable in the country of origin, as it often takes over a week for the fish to reach its country of import.

Similar studies of other species must be examined to continue to develop our understanding of CN metabolism in marine fish before a reliable cyanide detection test can be developed.

