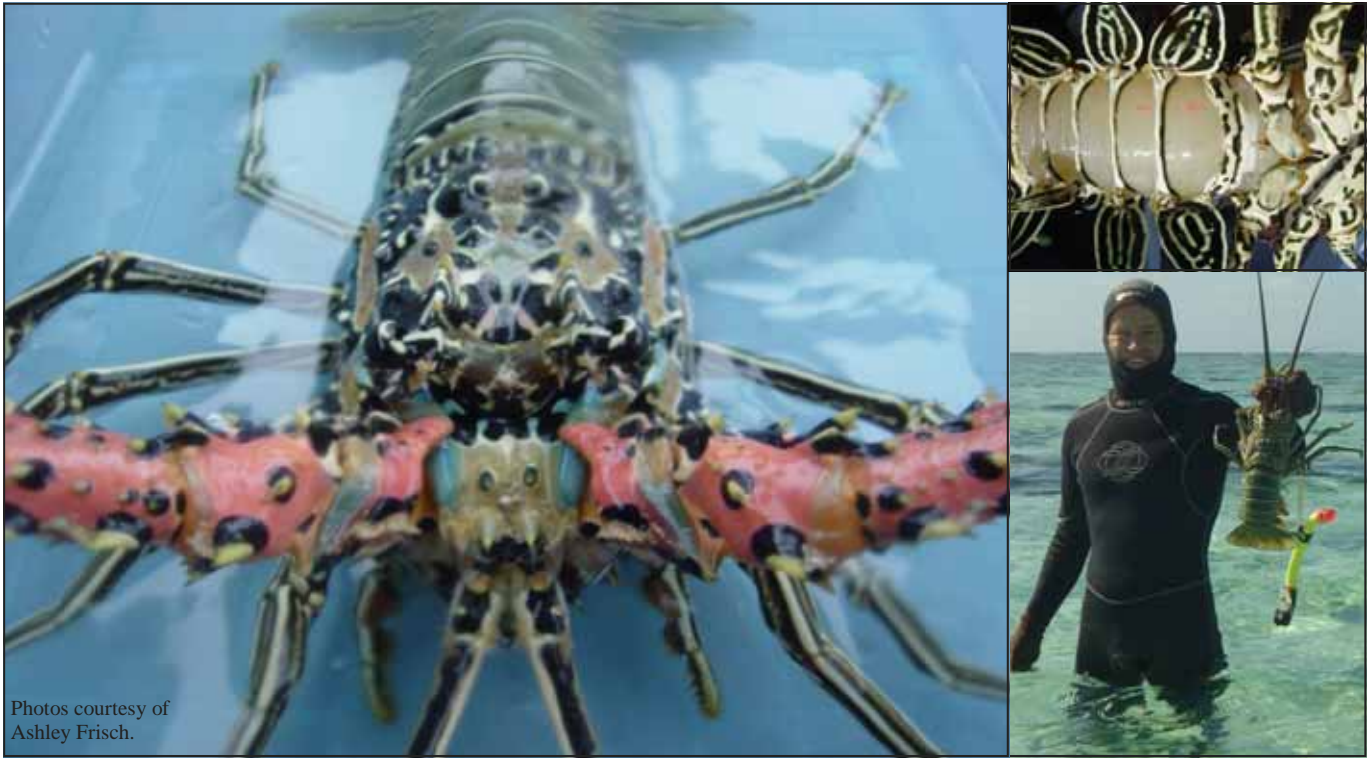


# Discovering the Painted Crayfish



Photos courtesy of Ashley Frisch.

Painted crayfish *Panulirus versicolor* (above) are widely exploited throughout the coral reefs of the Indo-Pacific region, including Australia's Great Barrier Reef. They command a high price but relatively little is known about their biology and population dynamics.

Ashley Frisch, at James Cook University, (photo lower right) is beginning to unlock some of the painted crayfish's secrets. His studies first required a technique to identify individuals. Ashley tested NMT's injectable Visible Implant Elastomer tags and found them to be highly suitable<sup>(1)</sup> (photo top right). By using a combination of tag colors and locations, he devised a system for identifying up to 30,000 individuals.

Ashley's work now focuses on the population dynamics of the painted crayfish. He found that male crayfish live in coral reef dens. If the den is large enough for more

than one crayfish, the male can attract females to share his den. Ashley's work also revealed that males with the largest dens can attract more than one female and increase their reproductive potential. Males with dens large enough to attract females must fastidiously defend them from other male crayfish, about one third of the population, that don't have dens large enough to share with a female. These "bachelor" males constantly roam the reef searching for a better den.

NMT is delighted to advise on projects and to help set up tagging programs, anywhere in the world. Please contact us if we can help with yours.

<sup>(1)</sup> Frisch, A.J. and J.A. Hobbs. 2006. Long-term retention of internal elastomer tags in a wild population of painted crayfish (*Panulirus versicolor* [Latreille]) on the Great Barrier Reef. *J. Exp. Marine Biol. and Ecol.* 339:104-110.

Northwest Marine Technology, Inc.  
[www.nmt.us](http://www.nmt.us)

Corporate Office  
360.468.3375 [office@nmt.us](mailto:office@nmt.us)

Shaw Island, Washington, USA

Biological Services  
360.596.9400 [biology@nmt.us](mailto:biology@nmt.us)

