

# Proposed trial of modified recreational crab catching gear in Port Stephens

December 2014

## Why is a trial requiring modification of crab catching gear being considered?

Crabbing is a popular recreational fishing activity in Port Stephens and the use of crab catching gear, especially witches hats, is widespread throughout the estuary. Witches-hats are made of very thin, entanglement mesh, which is inverted when set and can result in the incidental entanglement and drowning of turtles and other non-target species.

Additionally, because of the lightweight nature of the steel ring in witches hats, they can often move location during tidal movements and be lost to the fisher. This lost gear then continues to ghostfish.

Recent changes to recreational fishing rules included reducing the number of witches hats from five to four per person and increasing the number of crab traps from one to two.

Port Stephens is recognised as an important estuary for turtles based on recent turtle tagging data. Since 2011, 13 turtles have been found drowned in Port Stephens as a result of entanglement mostly in recreational witches-hats and some in rectangular collapsible traps (based on DPI and National Parks and Wildlife Service monitoring data). It is expected there would also have been a number of unreported drownings in crab gear.

Occasionally turtle drownings in recreational crab gear are also reported from other estuaries, however, these reports are much more sporadic compared to Port Stephens.

Collapsible rectangular crab traps, which have wider entrances compared to round traps, have also been identified to pose a threat to turtles.

Given the high reported drowning rate of turtles in Port Stephens and recognition of the estuary being important for turtles, it is proposed to implement a trial in Port Stephens requiring:

- 1) recreational witches hats to be modified to operate as lift nets. Rather than acting as inverted entanglement nets, the modified nets will be required to lie flat on the seabed, significantly reducing the interaction potential with non-target species.
- 2) reducing the entrance size of collapsible rectangular crab traps (and other traps if required), which will still enable crabs to enter the trap but restrict entry of non-target species such as turtles.

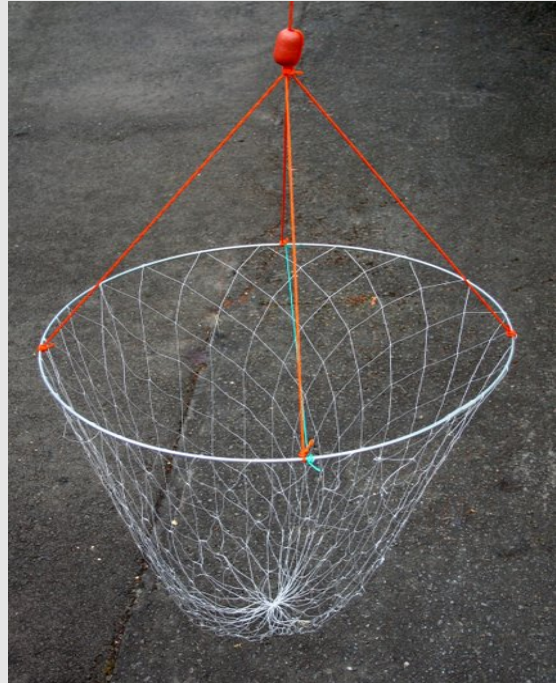
## How would you modify existing witches hats if the trial was implemented?

Witches-hats (image 1) would be required to be converted to operate as a lift net by removing the float from above the mesh and re-attaching the float line with several lengths of lines directly to the ring (image 2). When set, the mesh would now lay flat on the bottom underneath the bait line and be effective in catching crabs feeding on the bait when the net is lifted.

Image 1: A “witches-hat” - the float keeps the netting material off the bottom and the inverted mesh operates as an entanglement net.



Image 2: An example of witches-hat converted to a lift net (or dilly) - the ring and net lay on the bottom when set and crabs feeding on the bait are caught when the net is lifted.



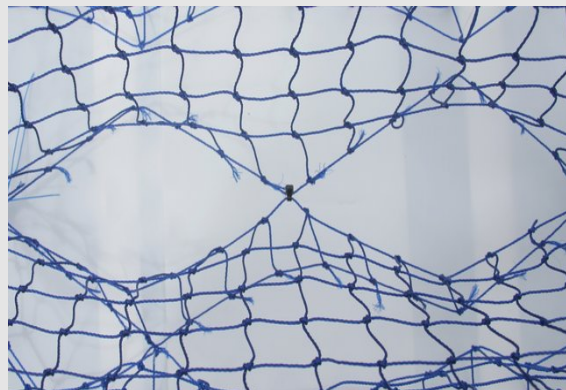
## How would you modify existing collapsible, rectangular crab traps if the trial was implemented?

The entrance width of collapsible rectangular crab traps would be required to be reduced to a width not exceeding 35cm using a cable tie, cord or other means (image 3 and 4). This will still enable crabs to enter the trap but will restrict entry of non-target species such as turtles.

Image 3: A cable tie being used to reduce the size of the entrance of a crab trap.



Image 4: An entrance of a crab trap which has been reduced in size.



## Would modifications be required to rigid and round traps or lift nets (dillies)?

All recreational crab traps would be required to have an entrance width not exceeding 35cm. DPI has tested a wide range of crab traps currently available on the market and the majority of round and rigid traps already have entrances less than the proposed maximum entrance width of 35cm. Therefore, it is very unlikely that modifications would be required for rigid and round traps. Similarly, the trial would not require any modifications to lift nets (commonly called dillies). The risk of turtles drowning in rigid and round traps or lift nets is considered to be very low.

## How will DPI determine the effectiveness of the trial?

DPI will continue to monitor turtle drownings in Port Stephens during the trial and elsewhere in NSW. DPI will also continue to monitor turtle movements in Port Stephens in collaboration with other organisations. The effectiveness of the trial will be reviewed after 12 months.

## Reference

Gallen, C and Harasti, D. 2014. Monitoring movements of marine turtles, and associated threats, within a temperate marine park, New South Wales, Australia. Conservation & Restoration Ecology, Marine & Freshwater Ecology poster. Source: <http://f1000.com/posters/browse/summary/1096259>.

## Have your say

To comment on this proposal, or to obtain more information

- 1) email [fish.review@dpi.nsw.gov.au](mailto:fish.review@dpi.nsw.gov.au) or
- 2) post your comments and questions by 2 February 2015 to:

Port Stephens modified crab gear trial  
NSW Department of Primary Industries  
LMB 3020  
Nowra NSW 2541

---

© State of New South Wales through the Department of Trade and Investment, Regional Infrastructure and Services, 2014. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (December 2014). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser.

Published by the Department of Primary Industries.

BN14/7670

