

## Behavioral study of diamond squid – using Data Storage Tags

The Sea of Japan is one of the largest fishery grounds in the world for the diamond squid (*Thysanoteuthis rhombus*), but migration mechanism there is poorly known. A joint tagging project using electronic loggers started to reveal it. As to mounting, the original tag fastener was made.

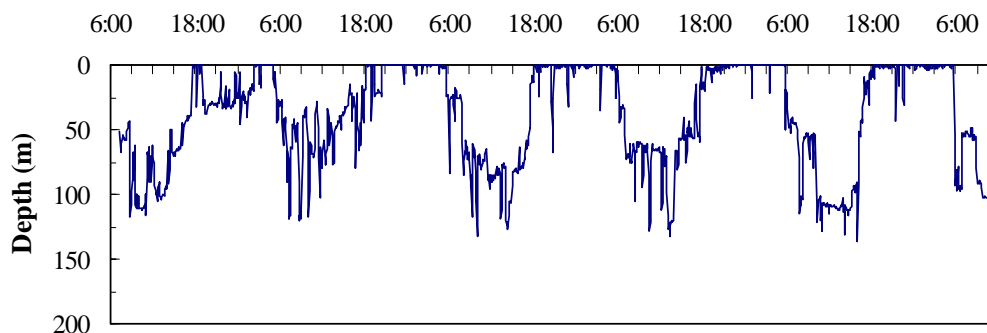


In October 2005, fishery researchers from three organizations in Japan (local governments of Hyogo and Tottori, and Kinki University) tagged 46 squids (mantle length: ca. 40-65 cm) in the southern Sea of Japan to clarify the swimming behavior and infer migration patterns of the squid.

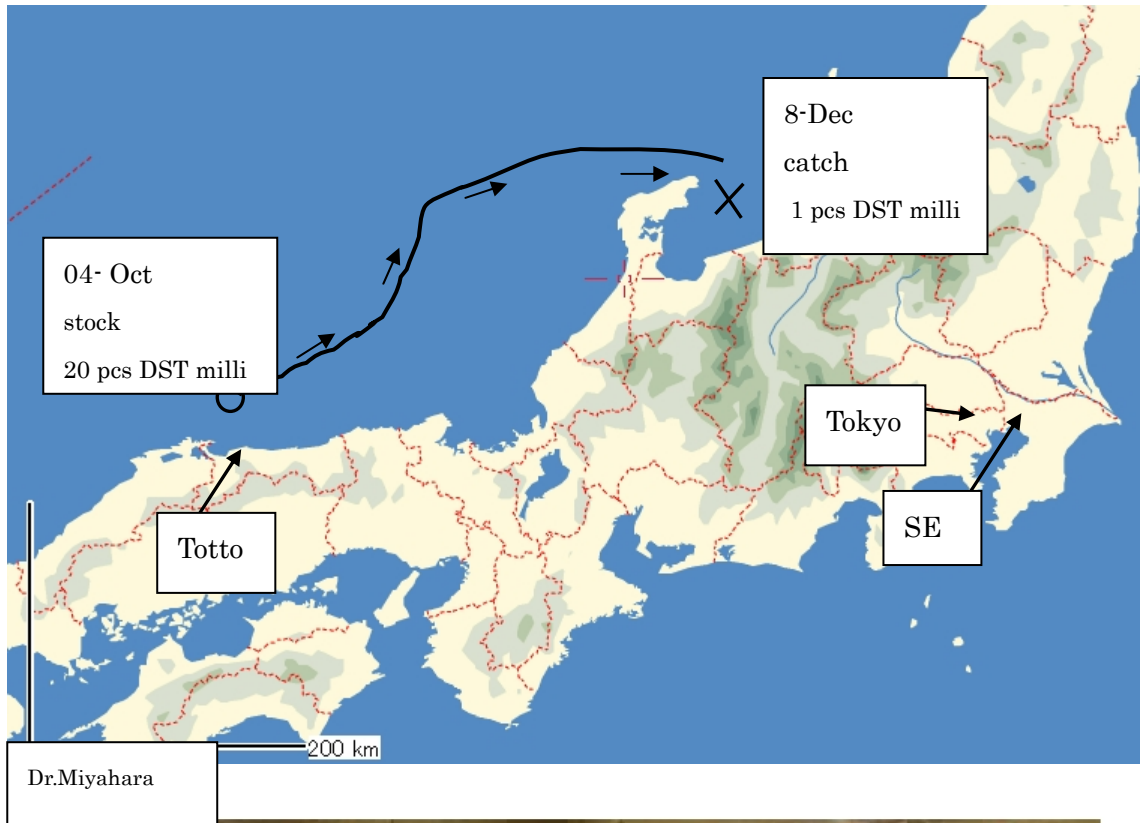


A temperature and depth logger (DST milli) was attached on the fin of each squid along with a conventional disk tag, and 10 tags have been recaptured so far.

Recapture sites were located both east and west of the release site, but week or month-long depth records showed a diurnal vertical migration pattern in common with all recaptured; the squids swam at 0-50 m depths at night and at 50-250 m depths during the day, and punctually changed the depths just after dawn and before sunset. The thermostat records showed surprisingly low water temperatures (below 2-4°C), and was often experienced during the descent to the 250 m depth, which is not fatal for the squid. The recaptured tags have given informative data to tell how adult squids behave in the sea.



Swimming depth of a tagged diamond squid with time series



DST milli

### 再捕された方は

- ① 魚体から**標識本体のみを取り外してください**。
- ② 取り外した標識は精密機械たりぶつけないようお願いいたします。**Inshulock**が遊泳していた水深や水温が記録されています。
- ③ **必要事項(下記)**を記録し、**標識と同封して兵庫県但馬水産技術センターまたは鳥取県栽培漁業センターへ着払いの宅配便で送付してください**。



標識はインシュロックで固定してあります。魚体から標識本体のみを取り外してください(インシュロックは切ってもかまいません)。本体にはデータが記録されていますので、取り扱いに注意してください