## Title
Using stylet elemental signatures to determine the population structure of Octopus maorum

## Date
2011-10-26T15:36:00

## Date type
Creation

## Abstract
A novel method was used to investigate the population structure and dispersal patterns of Octopus maorum, an octopus species with a planktonic larval stage, which forms a distinct and large aggregation in southeast Tasmania. Single and multi-elemental signatures within the ‘early life history’ region of the stylet (an internal ‘shell’) were used to determine levels of connectivity and the common origins of individuals collected from 5 locations across Tasmania, South Australia and New Zealand.

## Metadata language
eng

## Character set
UTF8

## Hierarchy level
Dataset

### OnLine resource
- **Linkage**: [http://metadata.imas.utas.edu.au:/geonetwork/srv/en/metadata.show?uuid=905d1aa3-fd5b-4fbe-83c8-22cf0b84ab18](http://metadata.imas.utas.edu.au:/geonetwork/srv/en/metadata.show?uuid=905d1aa3-fd5b-4fbe-83c8-22cf0b84ab18)
- **Protocol**: WWW:LINK-1.0-http--metadata-URL

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- **Role**: coInvestigator

### Topic category
- **Oceans**

### Keyword
- **Type**: Theme
  - **Keyword**: Biosphere | Zoology | Mollusks
- **Keyword**: Population structure
- **Keyword**: Laser ablation
- **Keyword**: Stylet
- **Keyword**: Dispersal
- **Keyword**: Octopus maorum
- **Keyword**: taxon
### Extent

**Geographic bounding box**

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### Lineage

**Statement**

Octopuses were collected from 5 sites: northeast Tasmania (NE), southwest Tasmania (SW), the Eaglehawk Bay aggregation (EHB) in southeast Tasmania, South Australia (SA) and New Zealand (NZ). Octopuses were collected as bycatch from rock lobster fishers (at depths between 10 and 40 m) from all sites except EHB, where they were collected from the commercial octopus fishery (at depths between 1 and 3 m). All specimens were frozen prior to dissection. Whole wet weight (kg) or mantle weight (g) (as the arms were often removed), sex and stage of maturity were recorded. Males were classed as mature or immature, depending on the presence or absence of visible spermatophores in Needham's sac. Females were assigned a maturity stage from 1 to 3 (immature, maturing or mature) depending on ovary size and level of egg development. Octopuses ranged in size from 0.7 to 10.2 kg. All males and 50% of females were mature.

Styles were removed from thawed mantle tissue and allowed to air dry for 2 d prior to being stored dry. For further information on stylet preparation please consult the published paper.

### Resource constraints

**Use limitation**

The data described in this record are the intellectual property of Zoe Doubleday.
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**Metadata author**

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