

# Poster: Fish Ageing

## Phase of learning

Years 9 - 10, Senior Secondary (Years 11-12)

## WA Curriculum

SS Biology – ATAR, SS Marine and Maritime Studies – ATAR

## Region

North Coast, Gascoyne Coast, West Coast, South Coast, Indian Ocean Territories

## Summary

This poster shows how fisheries scientists at the Department of Primary Industries and Regional Development (DPIRD) use scales and, more accurately, otoliths, to age fish. Determining the ages of fish tells scientists the health of the overall population. From this information, informed fisheries management practices can be applied to ensure fish for the future.



# Fish Ageing

Ageing fish is an important part of fisheries research. By determining the age of fish, researchers can determine the stock status (health) of a fish population.

Otoliths are located behind the fish's brain



## How to determine a fish's age

Similar to the seasonal growth rings in a tree, the age of fish can be determined by counting the growth rings formed in various hard parts of their body.

### Scales

Fish scales are easy to collect, however they can underestimate age due to scale loss and regrowth.

### Otoliths

Otoliths are hard bony structures found in the inner ear of a fish used for balance and hearing. Since they cannot be lost and continue to grow throughout the fish's life, they are more accurate for ageing.

**Whole otoliths** are often used with shorter-lived species where the numbers of rings is low and easy to count. However, with older fish, the rings become less obvious to see.

**Sectioned otoliths** are commonly used to age longer-lived species. By sectioning the otolith, the growth rings often become more clearly seen.



Fish scale



Whole otolith



Sectioned otolith

## **Download Resource**

[E?001?21 Otolith POSTER](#)

## **Related resources**

[Fact Sheet: Fish ageing](#)

[Hillarys School Excursion: Fish Dissection - Senior Secondary](#)

[Hillarys School Excursion: Fish of Ages](#)