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.

Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

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.

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

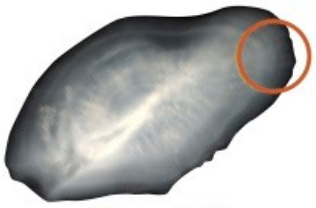
Fish scales are easy to collect, however they can underestimate age due to scale loss and regrowth.


Fish scale

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.


Whole otolith

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


Sectioned otolith

E/001/21

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E?001?21 Otolith POSTER

Related resources

Fact Sheet: Fish ageing

Hillarys School Excursion: Fish Dissection - Senior Secondary

Hillarys School Excursion: Fish of Ages