

# Age estimation of the whiting from eastern English Channel and southern North Sea

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Whiting  
*Merlangius merlangus*

Whiting is found in the North East Atlantic, from Iceland and south-east of the Barents Sea to the Portugal coastline, but also in the Black Sea and in the northeast of the Mediterranean Sea.

This benthic-demersal fish lives on gravelly or muddy substratum between 10 and 200 m in depth, and is especially abundant between 30 and 100 metres.

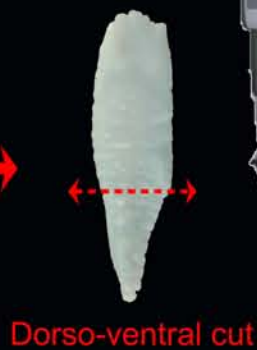
Whiting acquires its sexual maturity between 1 and 4 years old and its longevity is estimated at 15 years.



Concave and convex sides of the otolith



Otoliths embedded in resin



Dorso-ventral cut



High speed diamond saw

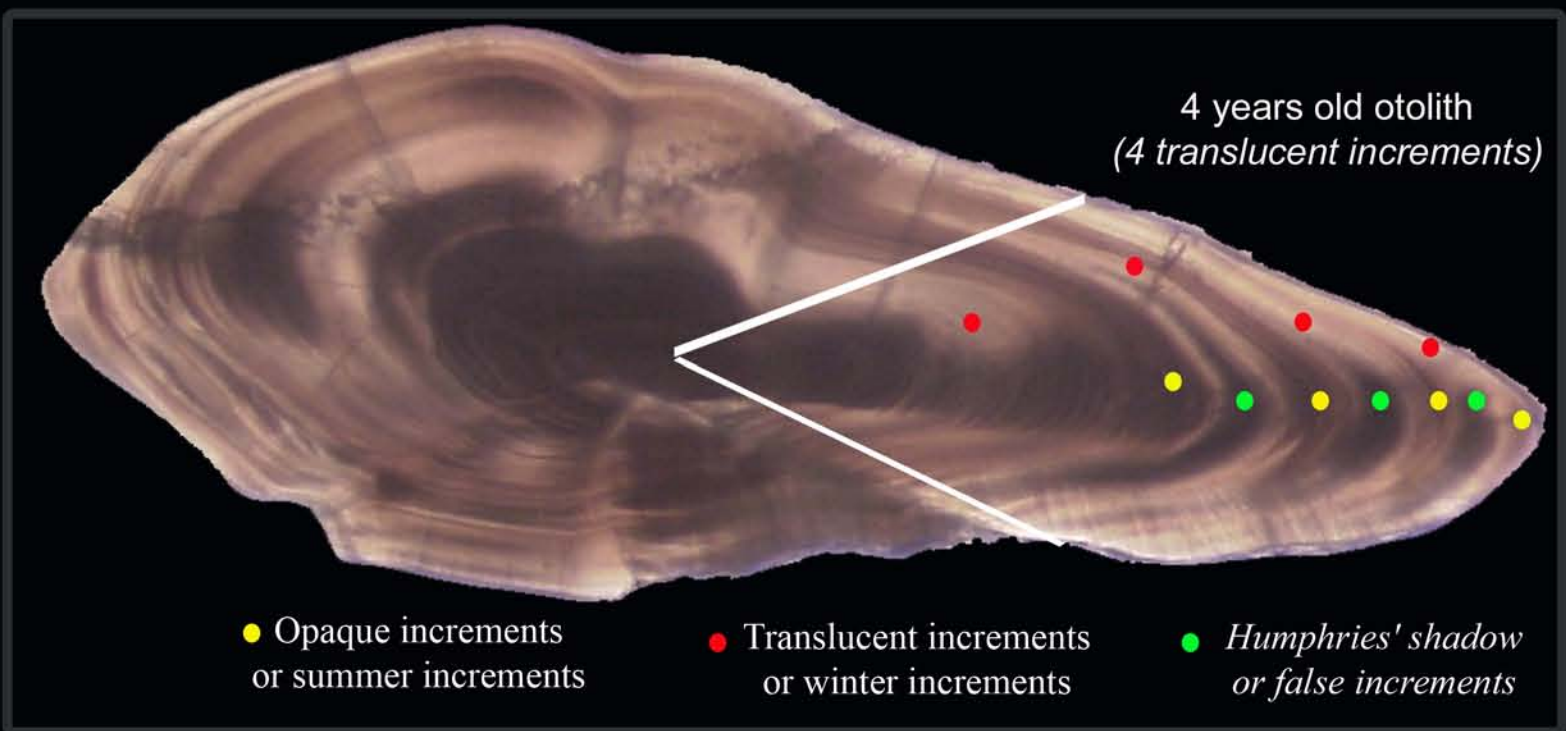


### Preparation and observation technique :

Otolith is embedded in resin, then cutted, along its dorso-ventral axis, in thin section, which is observed under a microscope to estimate the age.

### Reading difficulty :

An alternation of opaque and translucent increments is observed in whiting otoliths, but false rings are also present, called Humphries' shadow, which induce difficulty in age estimation.



4 years old otolith (4 translucent increments)

- Opaque increments or summer increments
- Translucent increments or winter increments
- Humphries' shadow or false increments



0 year old



1 year old



3 years old



2 years old



5 years old

All observations are realized under transmitted light.

All exhibited otoliths have been sampled during the second half of the year.