

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

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Centre Manche-Mer du Nord - Département Halieutique  
Laboratoire Ressources Halieutiques de Boulogne sur mer



Cod  
*Gadus morhua*

Cod is found in North Atlantic, from Greenland to the Bay of Biscay, where its attendance is unusual.

This benthic-demersal fish lives from the coast to depth of 600 metres and is especially abundant between 150 and 200 m.

Cod acquires its sexual maturity between 2 and 4 years old and its longevity is estimated at 25 years.



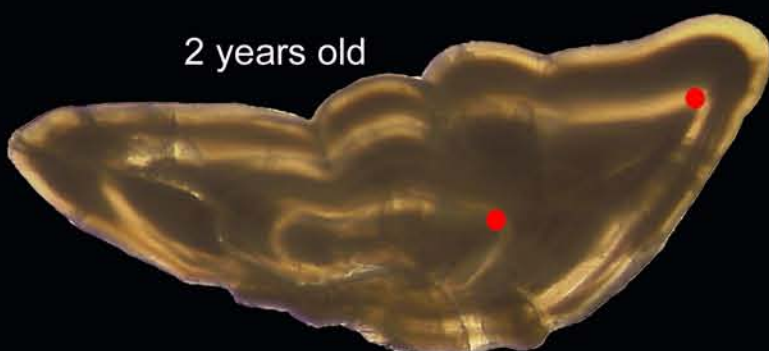
Concave and convex sides of otolith



0 year old



1 year old

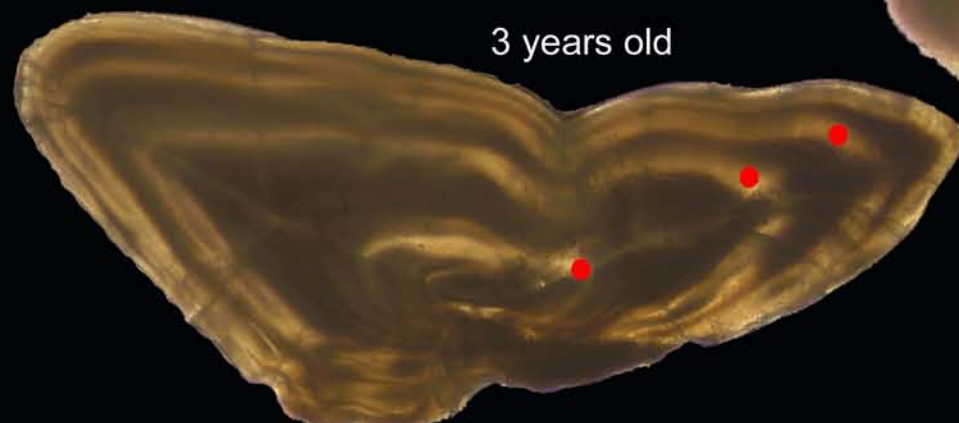


2 years old

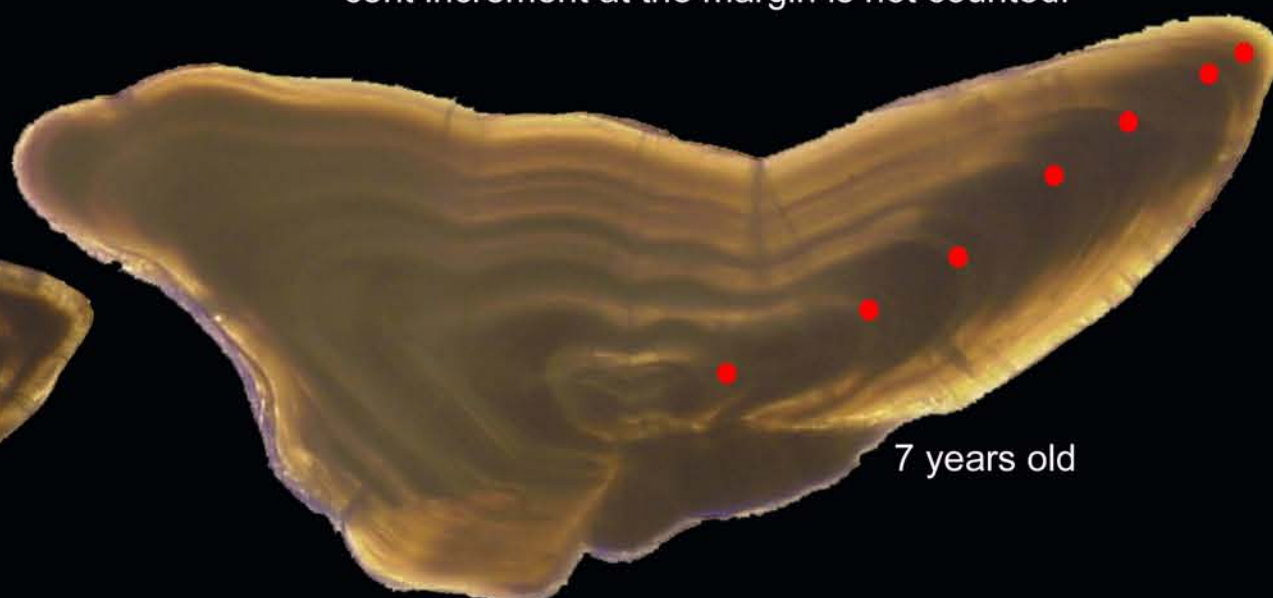


3 years old

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



3 years old



7 years old

All observations are realized under transmitted light.

## Preparation and observation technique:

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



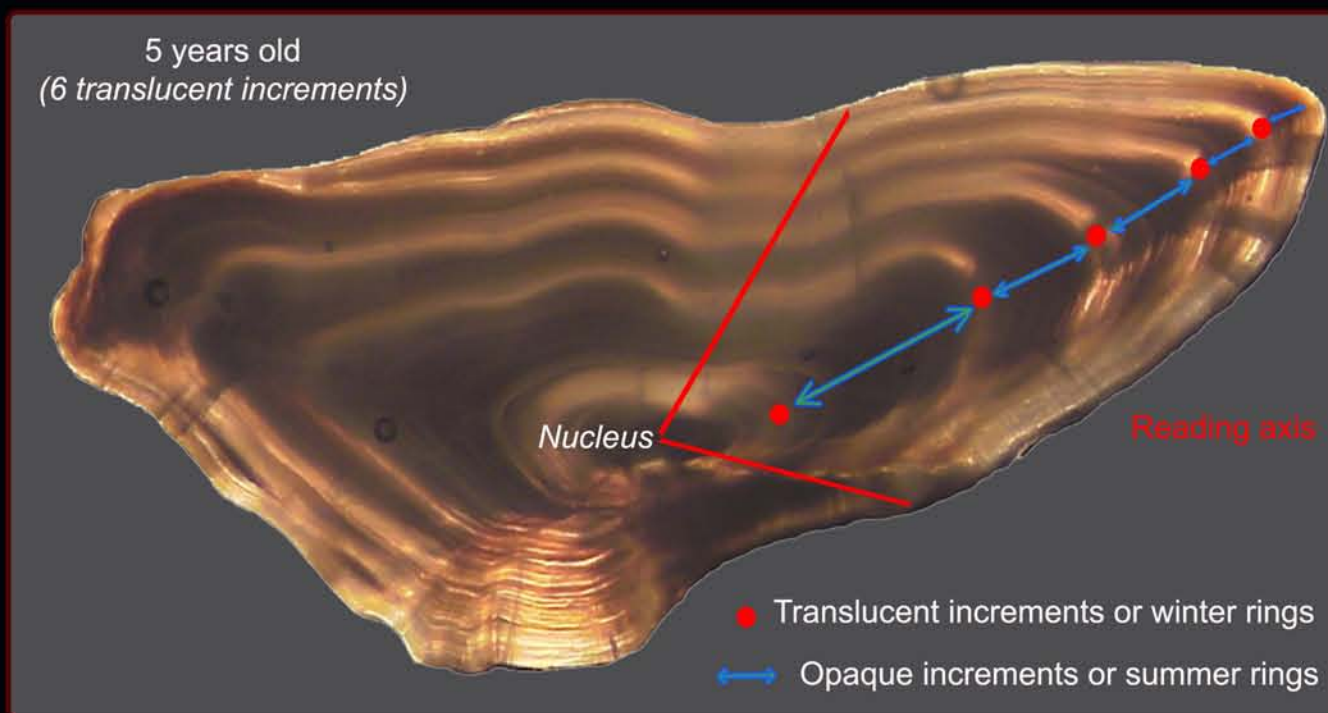
Resin block

Cut



## Otolith thin section

Thickness : 0.4 mm



5 years old  
(6 translucent increments)

Nucleus

Reading axis

● Translucent increments or winter rings

↔ Opaque increments or summer rings

## Age estimation :

If the otolith margin displays a translucent increment during the first half of the year, this one is counted.

During the second half of the year, the translucent increment at the margin is not counted.