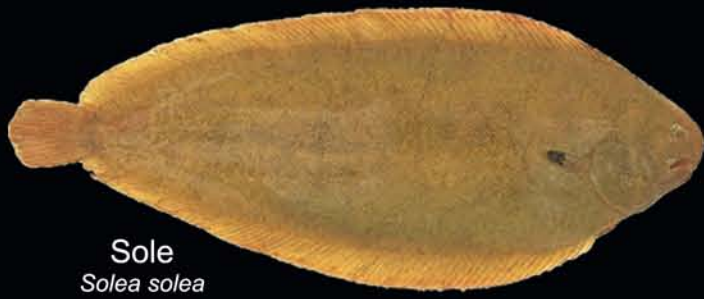


Age estimation of the sole from the English Channel and southern North Sea

IFREMER

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



Sole
Solea solea

Sole is found in the North East Atlantic, from the northern part of Norway to Senegal, including Black and Mediterranean Seas.

This benthic fish lives on muddy or fine sandy substrata between 0 and 150 metres in depth.

Sole acquires its sexual maturity between 3 and 5 years old and its longevity is estimated at 27 year.

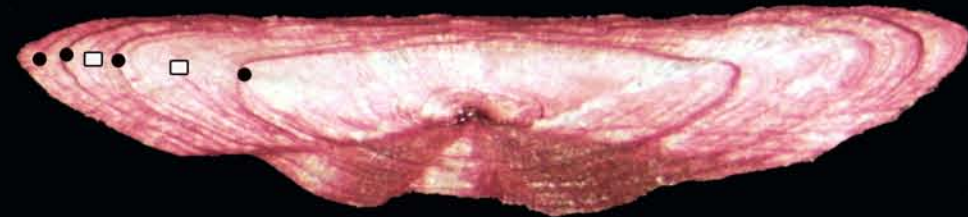


Concave et convex sides of the otolith

Thin section

Care is recommended to count rings after staining because 2 kinds of increments can be observed :

- Growth increments
- False increments



4 years old

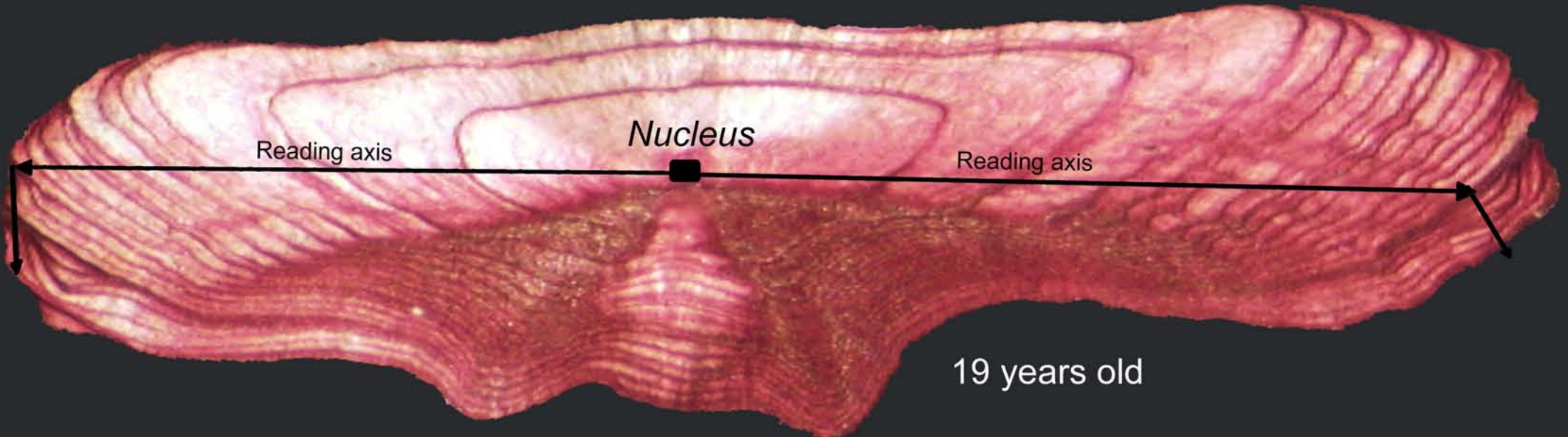
Section staining

Sections are stained to make increments stand out.





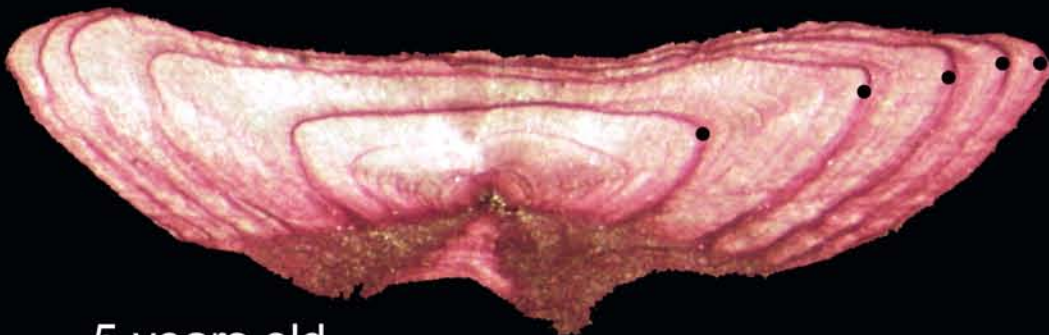
Dorso-ventral cut



19 years old

Growth increments :

Age estimation is obtained by counting translucent increments (= winter rings).



5 years old



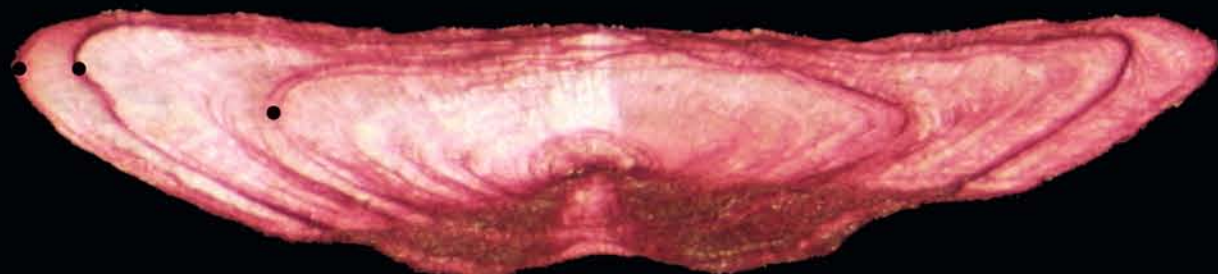
5 years old

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

Age estimation :

If the otolith displays a translucent increment at the ventral margin 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.



3 years old