

IDADE E CRESCIMENTO

DETERMINAÇÃO DA IDADE EM ESCAMAS

ESCAMAS

Tipos de escamas

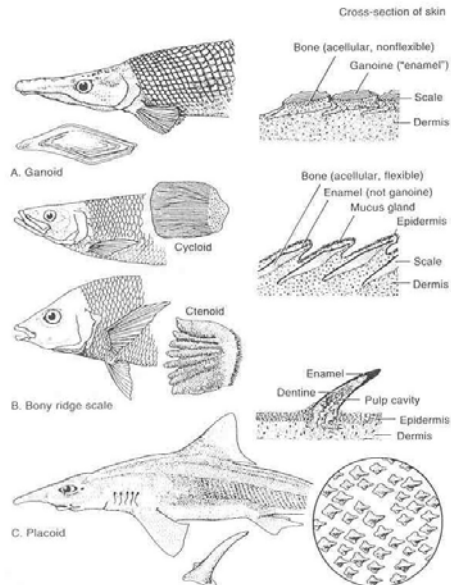
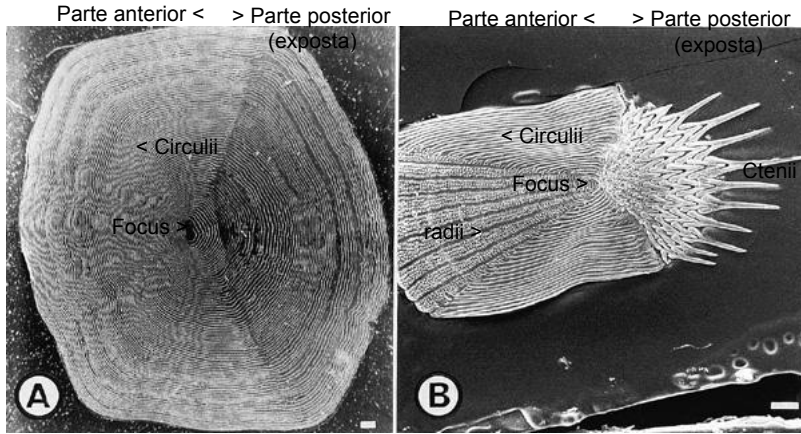


Figure 2.3 Examples of ganoid scales on gar, cycloid scales on sardine, ttenoid scales on snapper, and placoid scales on a shark. Ganoid scales after Dareff (1971), copyright © Fratelli, Fabbri Editori, Milan; cross sections after Hildebrand (1974), copyright © John Wiley. (From Moyle 1993, © 1993 by Chris Mari Van Dyck.)

ESCAMAS Elasmóides



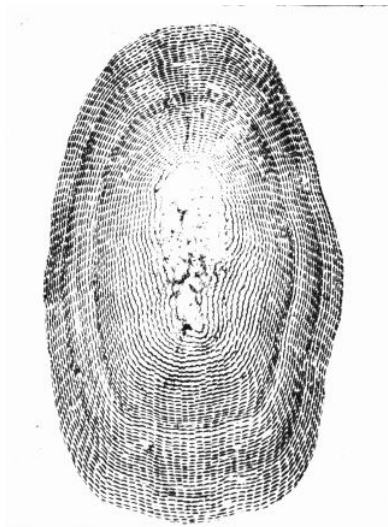
Ciclóide

Ctenóide

Panfili *et al.*, 2002

Fig. 2

ESCAMAS

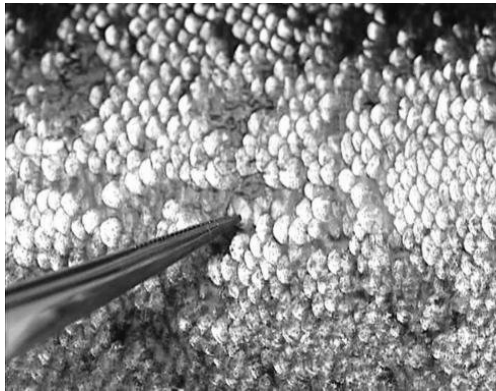


Escama Regenerada

NOAA – Age Reading Manual

Fig. 3

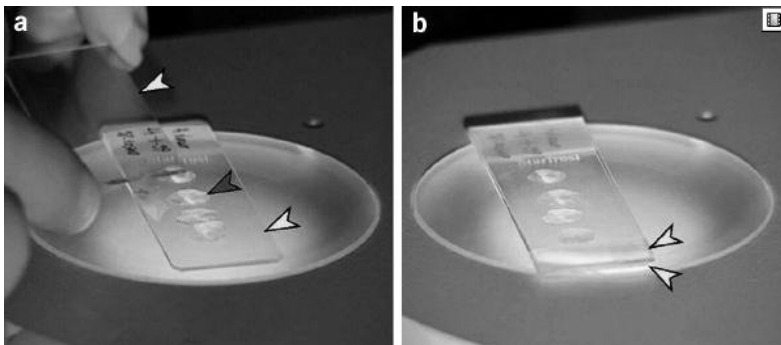
ESCAMAS



Filme 01 – Extracção de escamas

Panfili *et al.*, 2002

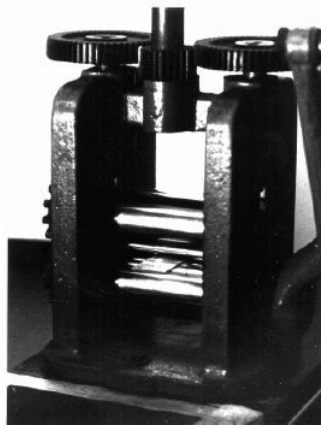
ESCAMAS



Filme 02 – Montagem de escamas

Panfili *et al.*, 2002

ESCAMAS

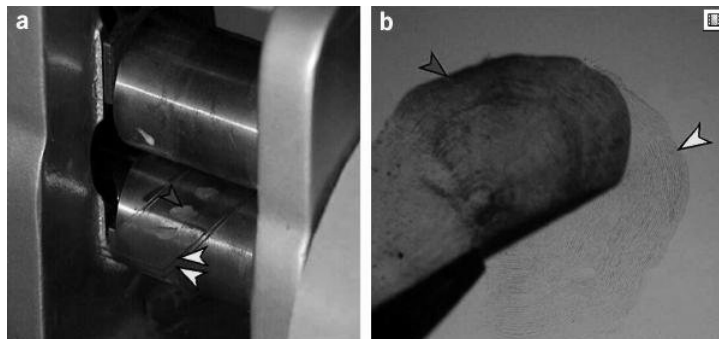


Prensa de joalheiro - Impressão de escamas

NOAA – Age Reading Manual

Fig. 4

ESCAMAS



Filme 03 – Impressão de escamas
em acetato de celulose

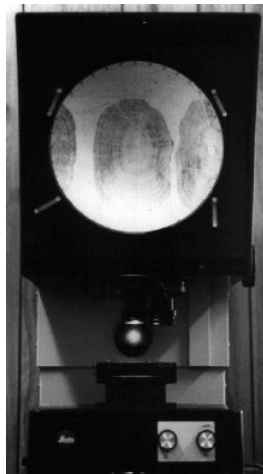
Panfili *et al.*, 2002

ESCAMAS

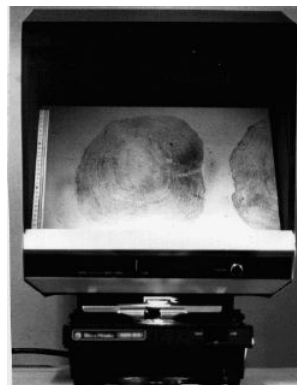


Lupa binocular

ESCAMAS

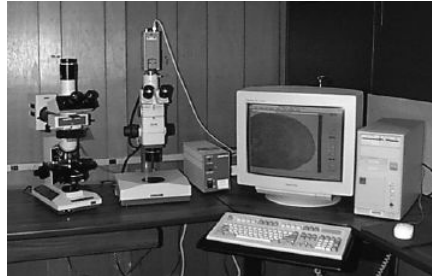


Microprojector de imagem



Leitor de microfichas

ESCAMAS

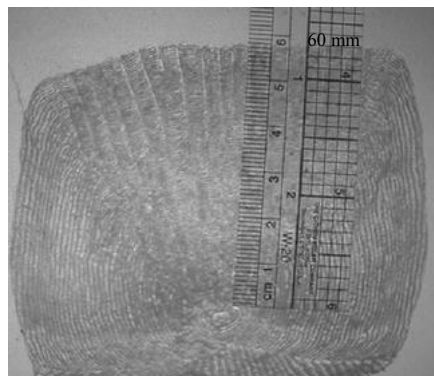


Análise de imagem

NOAA – Age Reading Manual

Fig. 7

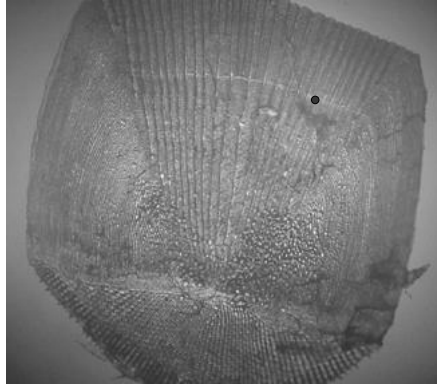
Robalo-muge (*Morone Saxatilis*) striped bass
– Arizona, EUA (Lake Powell)



LT=20cm; Idade 0 ano

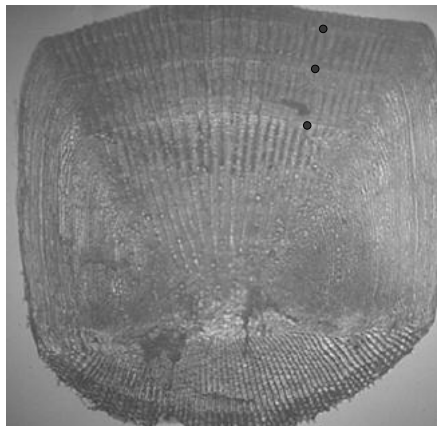
HOW TO AGE FISH BY READING SCALES in <http://www.wavneswords.com/news.htm>

Fig. 8



LT=32.5cm; Idade 1 ano

Fig. 9

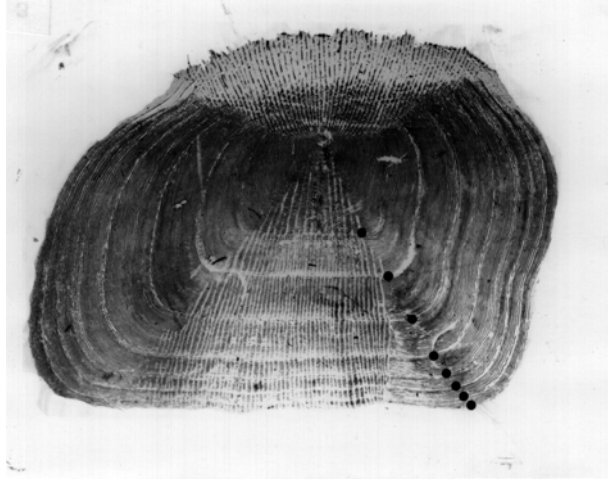


LT=47.5cm; Idade 3 ano

Fig. 10

ESCAMAS

Weackfish, *Cynoscion regalis* - 8 ano

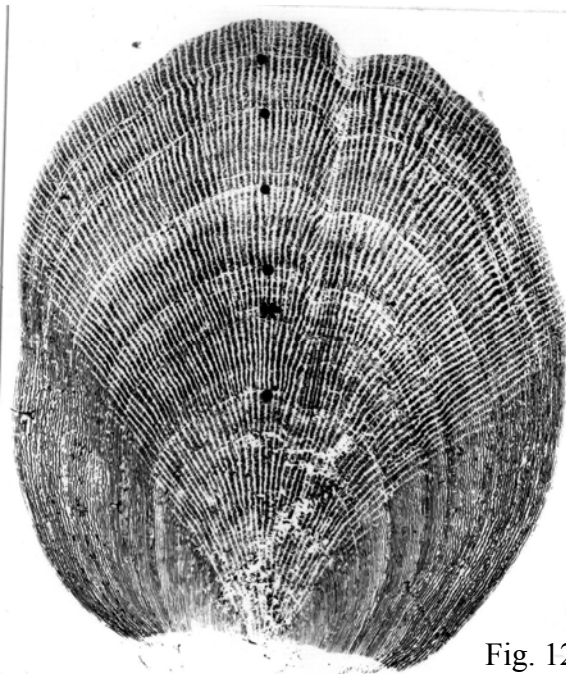


NOAA – Age Reading Manual

Fig. 11

ESCAMAS

Summer Flounder
Paralichthys dentatus
5 ano



NOAA – Age Reading Manual

Fig. 12

ESCAMAS

Summer Flounder
Paralichthys dentatus
Falso anel



NOAA – Age Reading Manual

Fig. 13