

South Georgia Larval fish Id



**British
Antarctic Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

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Introduction:

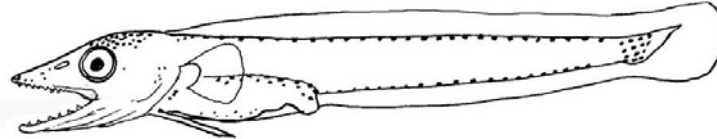
This is a visual reference key to the more abundant fish larvae found around South Georgia. Descriptions refer to postlarvae, at about the point of urostyle flexion - when the terminal vertebral element turns up. Pigmentation patterns change as the fish develop through larval and juvenile stages - see photos. Left photo for each species is of postlarvae, right photo of juvenile 'fingerlings'. Dates refer to pre-flexion larvae, and are approximate, based primarily on catches in plankton trawls in Cumberland Bay.

Icefish - Family Channichthyidae (ICX)

Teeth present & obvious, snout long and pointed in larvae over 20mm SL; Pelvic finrays long and obvious; A 'cap' of melanophores above eyes; Jaws extend caudally to beyond the middle of the eye

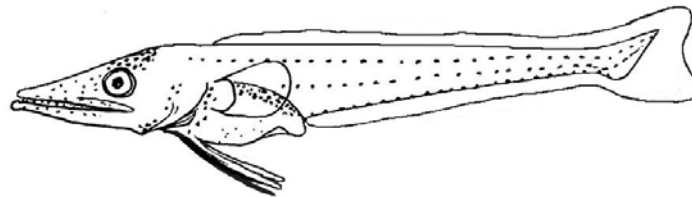
***Champscephalus gunnari* (ANI) - Mackerel Icefish**

No postanal lateral pigment except on the caudal peduncle; A single complete row of dorsal and ventral melanophores, the dorsal row reaching ahead of the pectoral base. Caught year round, peak in September. From 12mm.



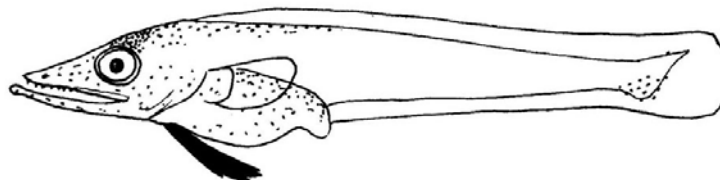
***Chaenocephalus aceratus* (SSI) - Blackfin Icefish**

Leading pelvic finray dark; Single dorsolateral, single ventral and single ventrolateral pigment rows present on postanal section. Caught spring to autumn (Jul-Apr) From 18mm.



***Pseudochaenichthys georgianus* (SGI) - South Georgia Icefish**

Heavily pigmented pelvic fins; No postanal pigment except on the caudal peduncle; Dorsal melanophore row absent. Caught spring to autumn (Jul-Apr) From 16mm.



(also *Champscephalus esox*)

Crocodile Icefish - Family Bathydraconidae

No obvious teeth; Gut moderately long, tail slender; Pelvic finrays not long and obvious; Snout elongate in larvae of more than 20mm SL; Continuous dorsal melanophore row from tail to beyond pectoral fin base; Dorsal abdomen (peritoneum) has more than five melanophores

***Parachaenichthys georgianus* (PGE) - South Georgia Crocodile Icefish**

Continuous dorsal melanophore row from caudal peduncle to ahead of pectoral fin level; Continuous ventral and peritoneal melanophore rows. Caught year round. From 12mm.



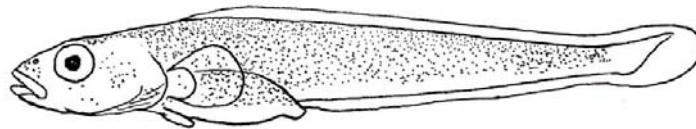
(also *Psilodraco breviceps*, *Bathydraco antarcticus*)

Notothens - Family Nototheniidae (NOX)

Gut short, tail slender; Pigment present (may be very faint in early larvae); No ventral abdominal melanophores (but other ventral melanophores); No obvious teeth except in *Dissostichius*

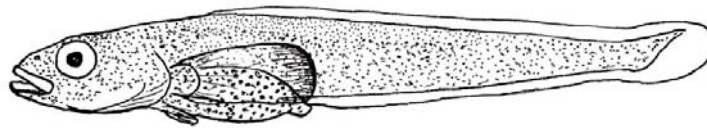
***Notothenia rossii* (NOR) - Marbled Rockcod**

Body relatively shorter and deeper than other notothenids; Continuous dorsal and lateral pigment of scattered melanophores; No ventral pigment rows, tail unpigmented. Caught summer (Dec-Mar) From 15mm.



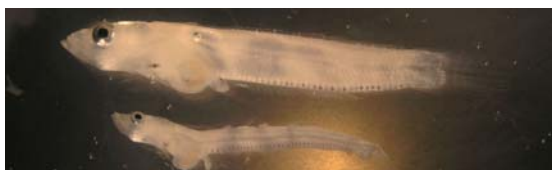
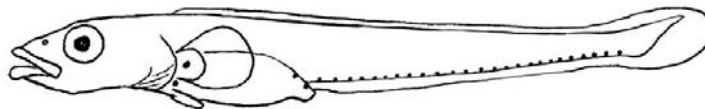
***Notothenia coriiceps* (= *neglecta*) (NOC/NON) - Bullhead Rockcod**

Body relatively shorter and deeper than other notothenids; Continuous pigmentation over most of body; Pectoral fin elongate, reaching beyond anus level, and pigmented at tip. Caught summer (Sep-Feb) Pelagic. From 9mm.



***Trematomus hansonii* (HAN) - Striped Notothen**

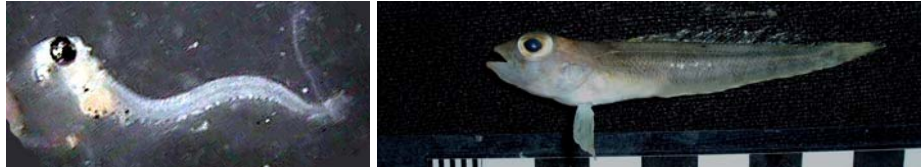
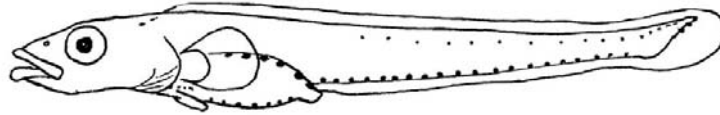
No ventral abdominal melanophores, 5 or less peritoneal melanophores; Ventral melanophore row present, faint or missing anteriorly; No dorsolateral pigment row; Single median melanophore on neck/base of pectoral; No continuous dorsal pigment row, melanophores on ventral row may be faint or missing; Tail slightly tapering. Caught year round (peak Jun-Jul). Common inshore. From 12mm.



Notothens - Family Nototheniidae (NOX) - contd.

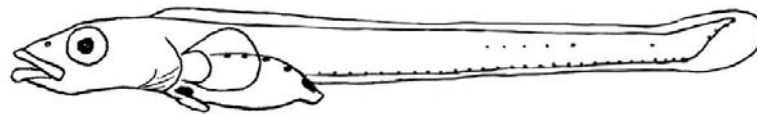
***Lepidonotothen nudifrons* (NOD) - Gaudy Notothen**

Similar to *P. larseni* but with a more distinct and extensive dorsolateral row extending over 2/3 of the length of the body. May have ventral abdominal melanophores. Caught spring to autumn (Sep-Apr). From 10mm.



***Lepidonotothen larseni* (NOL) - Painted Notothen**

No dorsal melanophores; Ventral melanophore row present, well developed anteriorly; A row of 3-11 dorsolateral melanophores present from mid torso to caudal fin - may be very faint in small larvae - Very similar to HAN; Well developed peritoneal pigment, normally five or more melanophores, the posteriormost usually long; Two pigment spots on head in larger specimens; Tail long, slender and cylindrical in pre-flexion larvae; No ventral abdominal melanophores; No dorsal pigment row; In juveniles the dorsolateral and ventral abdominal melanophores become faint, and brown, v-shaped saddles form on the body and tail. Caught late winter to late autumn (Sep-April) From 9mm.



***Lepidonotothen squamifrons* (NOS) = *Lepidonotothen kempfi* (NOK) - Grey Notothen**

Vertical bar of pigment near caudal peduncle; No continuous dorsal pigment row; Dorsolateral pigment row(s) above the abdomen. Caught summer (Jan-Mar) and winter (May-Jul)

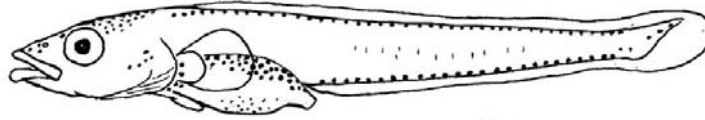


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Notothens - Family Notothenidae (NOX) - contd.

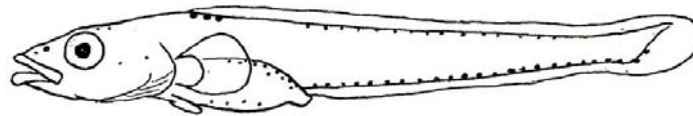
***Gobionotothen gibberifrons* (NOG) - Humphead Notothen**

Teeth not obvious; Continuous single dorsal and ventral pigment rows, and lateral flecks; Densely pigmented around peritoneum and behind gills; Often has a yellowish tinge to the head; Generally 'stockier' than most notothenid larvae, and shorter tailed. Caught spring to autumn (Sep-Mar) coastal waters. From 8.5mm,



***Gobionotothen marionensis* (= *angustifrons*) (NOF) - Lobelip Notothen**

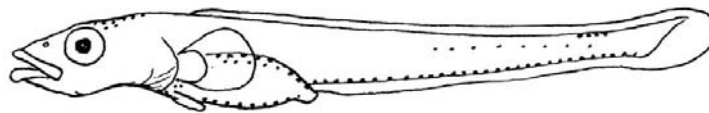
Three dorsal melanophores above pectoral base; Continuous single dorsal pigment row (may be absent in very small larvae); Continuous single ventral row. Caught summer (Nov-Jan) inshore. From 6mm.



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***Patagonotothen guntheri* (NOT) - Yellowfin Notothen**

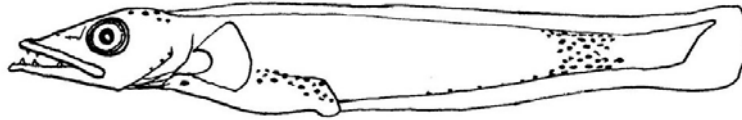
More than three dorsal caudal peduncle melanophores, no anterior dorsal pigment row; Ventral abdominal and peritoneal melanophores present. Caught summer (Dec)



Notothens - Family Notothenidae (NOX) - contd.

***Dissostichus eleginoides* (TOP) - Patagonian Toothfish**

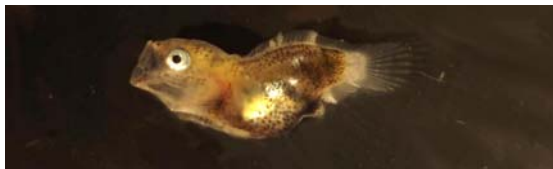
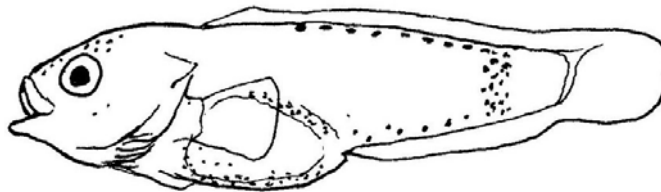
Teeth obvious; No continuous dorsal pigment row, other than at caudal peduncle; Vertical bar of pigment near caudal peduncle. Caught in summer (Nov-Feb). From 11mm.



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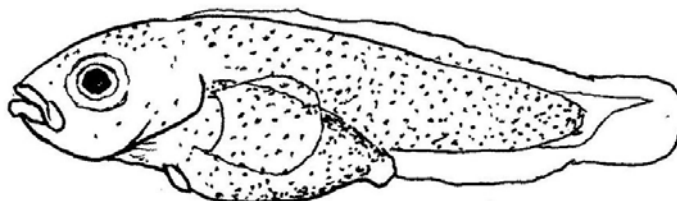
Spiny Plunderfishes - Family Harpagiferidae

Probably *Harpagifer georgianus*. No obvious teeth; Large circular eyes; Body short and deep; Short, swollen gut and short, thick postanal section; Thick vertical pigment bar on postanal section (may be indistinct); No pigment on caudal peduncle. Caught year round. From 7mm.



Plunderfishes - Family Artedidraconidae

Probably *Artedidraco mirus*. No obvious teeth; Pigmented on most of head and abdomen; Body short and deep, with extended abdomen. Caught spring to summer (Oct-Jan). From 10mm

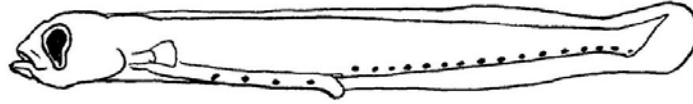


Lanternfishes - Family Myctophidae (LXX)

Eyes oval, normally with ventral extension. Caught spring to late autumn (Aug-May)

***Krefftichthys anderssoni* (AND)**

Gut long, body slender; A single continuous ventral and ventral abdominal melanophore row. Common. Caught year round (peak Jun-Jul)



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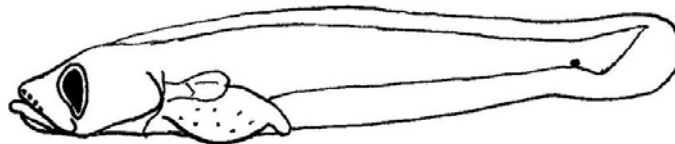
***Electrona carlsbergi* (ELC)**

Gut short, body moderately thick. No melanophores except on the upper lip. Caught winter (Jun-Jul)



***Electrona antarctica* (ELN/ELA)**

Gut short, body moderately thick. Melanophore present below Urostyle; No other melanophores except for upper lip in early larvae, melanophores appearing on gut and a single hypural (caudal peduncle) melanophore in later larvae. Caught spring to autumn (Sep-Mar)



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Lanternfishes - Family Myctophidae (LXX) - contd.

Also *Gymnoscopelus* spp. - long gut, slender body, eyes without ventral extension



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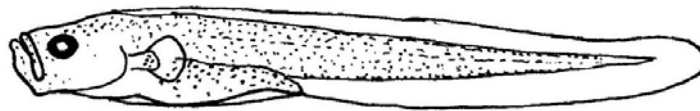
Also *Lampanyctus achirus*, *Protomyctophium* spp.

Order Gadiformes

Eelcods - Family Muraenolepididae (MOY)

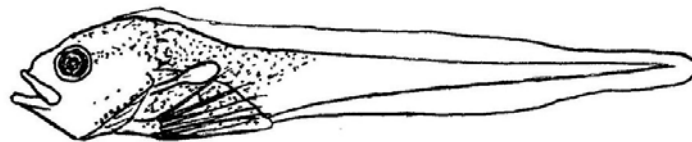
Muraenolepis microps, *M. marmoratus*, *M. microcephalus*, possible new species.

No obvious teeth; Gut short; Caudal fin continuous with dorsal and ventral fins; Pigmented all over except fins; More than 50 dorsal finrays. Caught spring to summer (Sep-Jan) From 16mm.



Grenadiers - Family Macrouridae (GRV)

Several species. Pelvic fin with an elongated stalked base; Tail thin and tapering; Gut short and swollen. Caught spring to autumn (Oct-Apr)

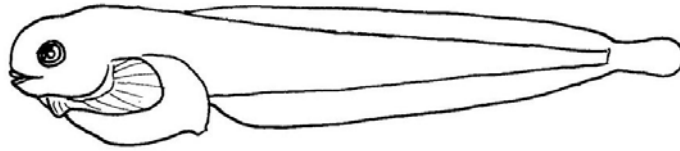


Order Scorpaeniformes

Snailfishes - Family Liparidae

Several species

Pectoral fin fanlike, its base extends to level of anus



References;

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