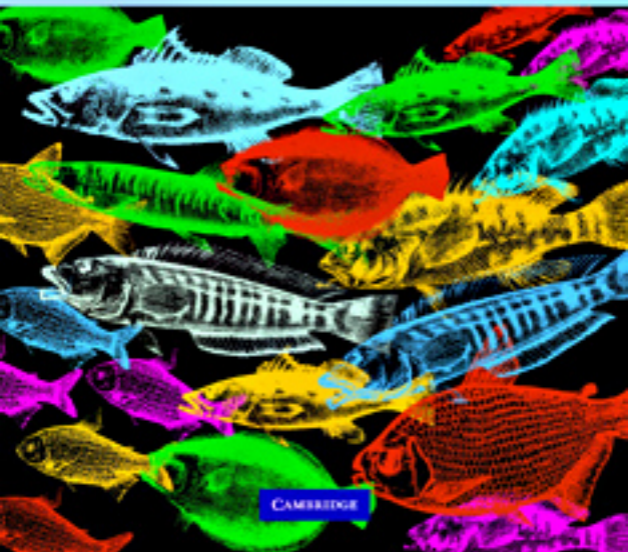




Darwin's Fishes

An Encyclopedia of
Ichthyology, Ecology and Evolution

DANIEL PAULY



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Darwin's Fishes

An Encyclopedia of Ichthyology,
Ecology, and Evolution

In *Darwin's Fishes*, Daniel Pauly presents a unique encyclopedia of ichthyology, ecology, and evolution, based upon everything that Charles Darwin ever wrote about fish. Entries are arranged alphabetically and can be about, for example, a particular fish taxon, an anatomical part, a chemical substance, a scientist, a place, or an evolutionary or ecological concept. Readers can start wherever they like and are then led by a series of cross-references on a fascinating voyage of interconnected entries, each indirectly or directly connected with original writings from Darwin himself. Along the way, the reader is offered interpretation of the historical material put in the context of both Darwin's time and that of contemporary biology and ecology.

This book is intended for anyone interested in fishes, the work of Charles Darwin, evolutionary biology and ecology, and natural history in general.

DANIEL PAULY is the Director of the Fisheries Centre, University of British Columbia, Vancouver, Canada. He has authored over 500 articles, books and papers.

Darwin's Fishes

An Encyclopedia of Ichthyology,
Ecology, and Evolution

DANIEL PAULY

Fisheries Centre, University of British Columbia

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Appendix I Fish in Spirits of Wine

JACQUELINE McGLADE

European Environment Agency, Copenhagen

The document below is a transcription of the part devoted to fishes of the **Zoological Notes* compiled by Charles Darwin (CD) during the voyage of the **Beagle*. This was originally copied by Syms **Covington* in 1838 or thereabouts. CD contributed corrections and additional text to the manuscript of 20 pages, kept in the Darwin Archive at the Library of Cambridge University as DAR 29.1.

I have in the main followed for this transcription the practice established by the editors of CD's **Correspondence* (see also **Conventions used in the text**). Thus, this transcription was as literal as possible, though in a few cases, Jenyns' *Fish* (which often cites '*Fish in Spirits of Wine*' *verbatim*) and Keynes' (2000) *Zoology Notes*, were used to select from a range of options. Also, I have attempted to reproduce the *form* of the original document: as already noted by Porter (1985), the right side of *Fish in Spirits of Wine* reproduces CD's field notes, while the left side mainly contains the species names resulting from Jenyns' identifications (including preliminary identifications, and names he subsequently rejected).

The inside page of the front cover of *Fish in Spirits of Wine* bears in CD's writing: + signifies the fish the names of which I am anxious to know.

Fish in Spirits of Wine

1832 Fish in Spirits of Wine “Rio de Janerio”

“Exd 17,, Porto Praya caught by hook “C. de Verd” [Isl] “Serranus goriensis Val.”

“Exd 18,, Hab. (ditto) D° vermilion, with streaks of iridescent blue “Upeneus prayensis”

“Exd 19,, Fish. Quail Island; they bite very severely; having driven teeth through M^r Sullivans finger. “Salarium atlanticus.”

“Exd 20,, Do “Salarium Atlant.” D° Porto Praya C. Verd Isl”

“Exd 21,, Do D° “Salarium vomerinus Z Cuv & Vals”

“Exd 43,, Fish, dark greenish, black above, beneath
 “+” lighter, sides marked with light emerald
 + green tips of anal, caudal, and hinder parts
 serranus of dorsal tipped saffron yellow. Tip of pectorals”
 aspersus orpiment orange Jan^y 25th Quail Is

Jan.

“Exd 44, 45, 46. Fish D° D°
114 Sucking fish “Echeneis Remora” off a shark near St Pauls.
126 Fishes. St Jago. Feb. and March.

“+, 132 Diodon “antennatus U P: 22 Bahia D°
~~137~~ Fish. D° D° “(Thrown away: bad),,

138 Fish “(Syngnathus crinitus, Jenn.),, D° D°

147, 149 Fish caught on the 21° of March
 Lat. 14° 2’0 S. Long 3° S. ‘S West. About 65
 miles from land; became of a pinker colour
 from spirits of wine” (Balistes vetula. B1, Young),,

154 Fish. (very small) Lat 17. 12. S. Long 36.33W.

Pages 156- Fish. In the above latitude and longitude,
157 Caught two specimens of a fish;
 belly silvery white. Mottled with brownish
 black, side blueish with dusky greenish
 markings. Iris yellow with dark blue pupil

“180	Pimelodus gracilis, D’Orb” (Val. In D’Orb. Voy. Dans l’Amer. Merid. Al. Lehth. [?] Pl.2.fig.5 and Cuv. Et Val. Hist.des Poiss. Tom. xv.p.134.) [Fishes] (D’Orbigny)	“Exd 180	Fish. Running block. Socêgo? Not common;p pectoral fin causes Painful pricks.	April
“181 & 182	These were <u>probably</u> the Pimelodus exsudans, Jen. - a h.d. of two specimens were found in the collections without labels	181 182	Another specimen from same site. Ditto	Ditto Ditto
“Nos 195, 210 & 228 - Are the same <u>Poecilia unimaculata, Val</u> ”	Ex ^d	195	Fresh water fish, in great numbers in a small ditch. Rio de Janeiro.	April
	Ex ^d	210	Fish out of a salt lagoon in great num= bers, precisely the same as (195) those taken in fresh water.	D° D° May
	Ex ^d	228	Fish, same as (195) Fresh water	D° D°
“269	Prionotus punctatus.”	<u>269</u>	Fish, swimming on surface. Rio bay. above and sides olive brown with red spots and marks, beneath silvery white; edges of pectoral fin Prussian blue, emitted a sound like a croak	D° D° June
“ <u>288</u>	Tetragonopterus scabripinnis, <u>Jen.</u> ?	<u>288</u>	Fish fresh water, same as (195)	D° D°
“301	Gymnothorax ocellatus Spix. & Agas. “* (Spix et A Pisces Brazil. p. 91 tab. 50b)	<u>301</u>	Fish. Rio Harbour.	D° D°
		309	Fish	D° D°
		334	Fish, little pools near the river Monte Video, August.	
“347.	Percophis brasilianus	<u>347</u>	Fish. Coast of Patagonia. Lat 38° 20’. August 26 th 14 fathom, caught by hook and line Above pale, regularly and symmetrically marked with “brownish red” (by the tip of each scale being so coloured). Beneath silvery white; side with faint coppery tinge; ventral fins yellowish. Pupil of eye intense black. When cooked was good eating.	
“348	Plectropoma patachonica, <u>Jen</u> ”	<u>348</u>	Fish. Hab same as last. Many specimens exceeded a foot in length Above aureous – coppery; with wave like lines of dark brown, these often collect into 4 or 5 transverse bands, fins leaden	

1832 Fish in Spirits of Wine

			Colour, beneath obscure; pupil dark blue, when caught vomited up small fish and a Pilumneonus. M ^r Earle states these fish are plentiful at Tristan da A <u>cūnha</u> ,” where it is called the Devils fish; from the bands being supposed the marks of the Devils fingers. Was tough for eating, but good. This sort was taken in very great numbers. Coast of Patagonia. August.
“354	Pinguipes fasciatus, <u>Jen.</u> ”	<u>354</u>	Fish. Hab. same as last. Above pole “chestnut brown” so arranged as to form transverse bands on sides; sides, head, fins, with a black tinge; beneath irregularly white; under lip, pink; eyes with pupil black, with yellow ris. From D ^o
“358	Plectropoma patachonica, <u>Jen.</u>	<u>358</u>	Fish. Hab. same as (347) Colour above salmon coloured.
359	Great shark (bad?)	359	Squalus. August 28 th . Lat 3°S. 2’5 South. Soundings 14 fathoms. Caught by a hook a specimen of genus Squalus; Body “blueish grey;” above with rather blacker tinge; beneath much whiter; Its eye was the most beautiful thing I ever saw, pupil pale “verdegris green” but with lustre of a jewel, appearing like a Sapphire or Beryl. Iris pearly edge dark. Scelrotica pearly; In stomach was remains of large fish. In the uterus, the young ones for a long time after the viscera were opened continued to move; good specimen for dissecting D ^o D ^o
367	Atherina incisa, <u>Jen.</u> <u>N.I</u>	367	Fish. Lat. 39 Long 61 W. Body semitransparent, colourless; with a bright silver band on each side; also d ^o marked about the head; taken some miles from the land. Sep ^t D ^o

		1832 Fish in Spirits of Wine - Bahia Blanco. Sep ^f
"371	Clupea arcuata, <u>Jen. NS.</u> "	<u>371</u> Fish. Body silvery, excepting back "greenish blue.
"390	(underneath another sp. Clupea?) Clupea (Alosa) pectinata, <u>Jen. N.V</u>	390, 391, 392, 394 Fish
		390 Fish. Caught on a sand bank in the net: body silvery, dorsal scales iridescent with green and copper; head "greenish;" tail "yellow."
		391 Fish. Body pale. Darker above: band on sides: common - broad. Silver" This is probably the <u>old</u> fish of the small ones (367) taken at sea.
"392	Umbrina arenata, <u>C.&V.</u> "	<u>392</u> Fish. Body mottled, with "silver and green;" dorsal and caudal fins "Read colour;" common.
"393	Mugil Liza? <u>C.&V. died.</u> & in bad condit. (thrown away.)"	<u>393</u> Fish. Back coloured like Labrador feldspar; iris coppery; plentiful.
"394	Platessa P. Orbignyana, <u>Val.</u> "	<u>394</u> Fish. Above dirty "reddish brown;" beneath faint "blue." iris "yellow;" plentiful.
"395	Rhombus - ?" [in panel underneath Platessa (?) - ? London]	<u>395</u> Fish. Above pale "purplish brown," with rounded darker Markings.
<u>396</u>	Young ray - (bad)	" <u>396</u> Fish flat. D°"
" <u>402</u>	Batrachus porosissimus, <u>Val.?</u> "	<u>402</u> Fish. Cast up on the beach. Above purple – coppery; sides pearly; beneath yellowish with silver dots in regular figures; iris coppery; not uncommon.
" <u>415</u>	Young Shark (bad)"	<u>415</u> Squalus. (very small specimen)
" <u>416</u>	Clupea arcuata, <u>Jen. N.S.</u> "	<u>416</u> Fish; back blue, belly silvery.
"431	Great Conger? Eel at Society (<u>bad</u>)"	<u>431</u> Fish; above reddish lead colour - October B. Blanca

"449	Paropsis signata, <u>Jen.</u> / <u>N.Gen</u> "	<u>449</u>	Fish. Uniform bright silvery, ridge of back blueish; black patch on gill-cover, and another under pectoral fin.
450	Same as 390 - Cuv. Va. -	<u>450</u>	Fish; scales silvery indescent, back especially greenish; caudal fins yellow; remarkable from circular dark green patch behind gill cover.
			Fish in Spirits of Wine M. Video. November
<u>458.</u>	Corvina adusta, <u>Agaz.</u> Dry - <u>459</u> - Mugil Liza? <u>Dry</u> & bad.	<u>458.</u> <u>459.</u>	Fish. Monte. Video. Octob. ^r 29 th .
		465.466.	Fish. "M.Video
		467.	Fish D°
<u>470</u>	Lebias multidentata. <u>Jen.</u> <u>N.S.</u>	<u>470.</u>	Fish. Fresh Water D°
479	<u>Unkn</u> - <u>Dry</u> and in bad order	479.	Fish. San Blas,. From the "Schooners, coast of Patagonia.
480.	Achirus (Plagusia)? <u>Dry</u> & in bad state -	<u>480</u>	Fish
		494	Fish. In coral. "Tierra del Fuego" 35 fathoms, about 30 miles off. Northern Tierra del Fuego. Dec. ^r 16 th Lat. 53.S. Head coloured purple (colour a "bru"ptly truncate posteriorly) with a white line over the nose, belly purplish; rest of body dirty yellow.
		504.	Fish. Very common in the Kelp. Coppery orange, with dark transverse markings; pectorals and verticals reddish orange.
		505.	Squalus. Goree ¹⁸³³ _ Sound: same Hab. as last. Above, with white and dark spots and transverse marks; [erased something] breast, and pectoral and ventral fins clouded with "scarlet red." Jan. 7.
		511.	Fish, with irregular bands of pale "reddish brown;" the pale parts with a most beautiful metallic violet coloured glitter along the sides. Grows to be one foot long. Jan ^y

-
513. Fish. dusky orange red, above dorsals. Kelp.
514. Fish. coppery orange above dorsals, common in the Kelp.
- “+ names of genus?” Fish. 504. 514. 520. And others form chief subsistence to the Fuegians. D°
- 515 Fish. (Cyclostomes?) Caught by hook amongst the Kelp. Goree Sound and other parts of Tierra del Fuego.
- “Myxinnus” Above coloured like an earth worm but more leaden; beneath yellowish and head purplish; very vivacious
- 1833 Fish in Spirits of Wine
- Goree Sound Jan^y “Tierra del Fuego”
And retained its life for a long. Had great powers Of twisting itself and could swim tail first; when irritated struck at any object with its teeth; and by protruding them „in its manner,, much resembled an adder striking with its fangs. Head most curiously ornamented with tentacles; vomited up a sipunculus. When caught. this fish is abundant amongst the rocky islets, having found one on the beach nearly dead. I observed a milky fluid transcending through the row of internal pores or orifices. It would appear to be Myxinidus.
516. Fish. D°
517. Fish. Above curiously marked with reddish purple, grey, and black.
- 519 Fish. Uniform yellow.
520. Fish. Anal and ventral fins black. Pectoral orange; three orange stripes on the sides. All these fish caught by hook in the Kelp.
523. Fish. Colour “crimson red.” Kelp.
524. 525. Fish. Caught in Kelp.
-

<u>526.</u>	Aplochiton taeniatus, Jen. <u>N.S.</u>	<u>526.</u>	Fish. (3 specimens) these were caught in the mouth of a fresh water stream; when the water was quite fresh upon being placed in salt water: they immediately died.
		531.	Fish. Beagle Channel - Tierra del Fuego
		535.	Fish. Abdomen with a fine red.
<u>536.</u>	Mesites alpinus, Jen. <u>N.S.</u>	<u>536.</u>	Fish. Alpine fresh water fish in lake; Hardy Peninsula.
		1833	Fish in Spirits of Wine Tierra del Fuego. N.B. In the same cash, as the Skate there is a Gadus, caught in Good Success Bay and common about Cape Fairweather; it leaves the coast in March.
		538.	Skate, two specimens both sexes Good Success Bay. Colour "broccoli brown" and marked (like binding of book) with rings and lines of "chocolate red." Iris silvery grey upper part depending fringed, sometimes almost concealing the pupil.
		542.	Fish. In pools left by the tide.
<u>543.</u>	Mesites maculatus, Jen. <u>N.S.</u>	<u>543.</u>	Fish, fresh water brook. Hardy Peninsula.
		<u>546.</u>	Merlus; caught in Good Success Bay, by hook and line; colours reddish brown and white variously marked. Eye with singular fleshy appendage; to the fish are sewn another pair from another specimen. March
		549. 550.	Fish. On the rocks on coast Good Success Bay. March.

<u>553. 4. 5.</u>	Aplochiton zebra. Jen. <u>N.S</u> (three spes.)	<u>553. 554.</u>	Fish from fresh water lake (Silurus?); dull leaden colour; good eating grow about as half as large again; common; Falkland Islands. This lake is not far from the sea, and connected by a brook
		<u>555</u>	
		+	
			<p>“ ~~~~~ - Falkland Island. March.</p>
		<u>558.</u>	Fish; under stones; sea coast.
		<u>562.</u>	Fish (two species). Rocks. Sea coast.
		<u>578.579.580</u>	Small rocky pools; at low water.
		<u>.581</u>	
		<u>592.</u>	Fish, fresh water, embourchure of brook.
<u>598</u>	Phucocoetes latitans, <u>N.S</u>	<u>598. 599.</u>	Fish. Caught amongst Kelp.
		<u>636.</u>	Fish. Hab. same as (634) Darwin Fresh water “brook” Maldonado. May
			“Rio Plata”
		<u>1833</u>	Fish in Spirits of Wine
		<u>660.</u>	Fish, fresh water lake. Maldonado “Mardonado” May. Lake left dry by breaking of bank; Lake sometimes a little brackish; above greenish black sides paler, Slightly iridescent.
<u>661.</u>	Hydrocyon Hepsetus -	<u>661.</u>	Fish. Fresh water lake; blueish silvery.
<u>No. 669. *</u>	Poecilia decem-maculata. Jen. <u>N.S.</u> - (2).	<u>669.</u>	Five species of fish from a lake which was suddenly drained. The fish with beard I have seen 8 or 9 inches long” “*, The „ <u>smallest fish</u> ., with black spots on side I think is full grown - I have taken them so repeatedly in brooks &c of the same size.
	Lebias lineata , Jen. <u>N.S.</u> - (3) Tetragonopterus interruptus, Jen. <u>N.S</u>		
		<u>692.</u>	Fish. May and June Maladonado

692.	<i>Percophis brasilianus</i> .	Ex ^d	<u>692.</u>	Fish. Mottled with red, beneath beautiful white; common, good eating.
693	<i>Atherina argentinensis</i> ? <u>Cuv & Val.</u> .	Ex ^d	<u>693.</u>	Fish, silvery, with silver lateral band, above blueish grey; very common, (also in brackish water.)
<u>694.</u>	<i>Otolithus Guatucupa</i> , <u>Cuv & Val.</u> - .	Ex ^d	<u>694.</u>	Fish, silvery white, above iridescent with violet purple and blue.
695.	<i>Corvina adusta</i> , <u>Agaz.</u> - .	Ex ^d	<u>695.</u>	Fish. Above more coppery, with irregular transverse bars of brown; beautifully iridescent with violet. June.
696.	<i>Dules auriga</i> , <u>Cuv.</u> .	Ex ^d	<u>696.</u>	Fish. Sides with numerous waving longitudinal lines of brownish red; intermediate species greenish - silvery, so figured as to look mottled; head marked with lines of dull red & green; ventral, and "anal.", fins coloured <u>dark</u> greenish blue.
<u>714</u>	<i>Umbrina arenata</i> , <u>Cuv. & Val.</u> .	Ex ^d	NB (+) <u>710</u> <u>714</u>	The above five fish Maldonado Bay. June Fish. Colour blueish silvery, fins, darker Maldonado. June
<u>723.</u>	<i>Diodon rivulatus</i> , <u>Cuv.</u>	End	" <u>723</u>	Diodon. Picked up on shore of R. Plata. Maldonado"
739.	<i>Achirus lineatus</i> , <u>D'Orbig.</u>		1833 738. 745. 741. + 746. (July)	Fish in Spirits of Wine Fish bought in market of Buenos Aires and all edible Is a fish excessively abundant high up the Rio Parana. In like manner is (745) the Armado. This fish is peculiar by the very loud harsh grating noise which it can make, heard even before hauled out of water. Is able to seize very firm hold of any object with the serrated pectoral bones and dorsal fins. Fish. High up the Parana, "near to Razjano" and [not] very abundant. Upper part of body with its fins with tint of yellow, but stronger on the head, with dorsal clouds of black, tip of tail black. Beneath silvery white, pupil black, iris white, usual size sometimes larger.

747.	Tetragonopterus abramis, <u>Jen.</u> <u>NS.</u>	747.	Fish same locality. Caught in October in the Rio Parana as high as Rozario. The “ four first ,” fish ^{“747: 48: 49: 50,”} are the commonest of the river fry. Back blueish silvery, with silver band on side, blueish black spot behind the Branchiae. Fins pale orange, tail with central band black. . D°
748	Tetragonopterus rutilus, <u>Jen.</u> <u>NS</u>	748.	Fish. Back iridescent greenish brown,,, silver band on side. Fins dirty orange, tail with central black band, above and below bright red and orange.
		749	Fish. Silvery; eyes fine black, “Hab,” peculiar form of belly; grows to twice the size of this specimen. “Hab” D°
		750.	Fish. Called salmon grows to one or two feet long. Above blueish gradually shading down, on sides; fins tipped with fine red, especially the tail, which latter organ has central black band. “Hab” D°
	P St Julian & Port Desire Central Patagonia	1833	Fish in Spirits of Wine
	Port Famine Tierra del Fuego	751.	Fish. Jar with the latter and B. Ayres fish also a cod and one sex of a Ray from Good Success Bay Tierra del Fuego.
		775.	Fish, in rocky pools of salt water - Beneath dirty white; back with dive brown darker in the middle. Port Desire. Jan 1834
776	Aphritis porosus, <u>Jen.</u> <u>NS.</u>	776.	Fish, left among the mud banks. D°
		785.	Fish, rocky pools: Port St Julian. D°
788	Stromateus maculatus, <u>Cuv. & Val.?</u> In bad condition & <u>thrown away</u>	788.	Fish, whole body silvery, upper part of back iridescent blue, lower greenish, spotted with coppery - head, circular patches; common size.
		789.	Fish. Back blackish; centre of each scale greenish white; reaches to one and two feet long. P. S ^t Julian. At Port Famine one was 2 ^{ft} 4 ^{inc} in length. A Pescado del Rey was ther”re,, likewise 20 inches long and wonderfully numerous.

-
791. Small fish. P. S^t Julian D^o
818. Fish. Above coppery yellow with 5 or 6 transverse brown bands; caught by hook and line. Port Famine.
819. Dog fish yellowish brown clouded with “cochineal red.” P. Famine.
829. Fish pale yellowish brown, with figure of S (~~or muscles~~) on sides pale coppery; about mouth bronchial covering tips of pectorals and ventrals, reddish orange; caught by hook, uncommon. D^o
835. Fish. Hab. as “S of C. Penas ^{east coast of T. del Fuego} beautifully silvery with raised lateral line; upper part of back, pale most beautiful Auricular purple
~~Straits of Magellan.~~
- 1834 Fish in Spirits of Wine
Tierra del Fuego. Feb.
838. Fish. Caught at night. 2 miles from shore. Cape Ines. 19th “13 fathoms”
840. Dog-fish. Colour pale “Lavender purple,” with cupreous gloss, sides silvery D^o, above with irregular quadruple chain of circular and oblong snow white spots tip of dorsal and caudal blackish under part of caudal reddish, iris pearly white. Length of old specimen tip to tip 2 feet 3 inches. breadth from tip of pectoral to tip of other 8 inches. young specimen out of belly; with it is posterior spine of old specimen.
847. Fish, above greenish black, beneath yellowish white, sides iridescent where the dark back shades away. N.B. bought of and cleaned by the Fuegians - Kelp fish – east entrance of Beagle Channel.
-

838. Clupea Fuegensis, Jen.

866.
870 Conger punctu^slatus, Jen. NS. -

-
848. Fish. Pectorals. Ventrals red orange; anal caudal dorsal blackish; back and sides mottled, reddish and greenish, & blackish & on kelp. East entrance of Beagle Channel.
849. Fish. Pectoral. Dorsal and Caudal. "Tile and vermilion red" side of head. 4 or 5 very irregular rows D° colour. Anal ventral and branchial covering dark blue black.
- (March)
866. Fish; very active; roots of Fucus. Hab: D°
870. Fish. Hab: D° (Young of 866)
876. Kelp Fish. Back mottled with dirty red and green; fins with orange eyes coppery. Beagle Channel.
- "Tierro del Fuego"
1834. Fish in Spirits of Wine. March
877. Gadus. Back "yellowish and chestnut brown" dorsal fins "Silver brown." Tierra del Fuego.
882. Dog-fish; upper part coppery "Brownish purple and Cochineal red" with small white: "Hab do., spots and large blackish ones: Ponsonby Sound.
883. Kelp. Fish. Hab: D° Mottled with orange: pectoral and part of caudal D° colour; anal ventral, Dorsal blackish green.
"_____"
- E. Falkland Island. March.
- 896, 897, Fish roots of Kelp. Berk^cley Sound
898
905. Fish. General colour "gallstone and honey yellow" browner on the back.
-

			906.	Fish. More brown on back; same general colour as above; with small irregular patches on sides of body, head and branchial covering, of pale silvery blue.
			907.	Fish D° Pectoral. Ventral and Caudal fins mottled with orange; body with brown blade; much more tenacious of life than latter two; all caught in Kelp. “ _____ “
		Ex ^d		Santa Cruz. May
<u>947.</u>	<u>Perca laevis, Jen. NS.</u>		<u>947.</u>	Fish found dead high up river of S. Cruz; “Patagonia” pale yellowish brown, with black mottlings
<u>952.</u>	<u>Mesites maculatus, Jen. N.Gen.</u>		<u>952.</u>	Fish, numerous in streamlets and creeks high up river; pale greenish brown with small irregular transverse bars of black, belly snow white.
<u>957.</u>	One of the <u>Gadidae</u> ; but in very bad condition, & <u>thrown away</u> –	Ex ^d	<u>957.</u>	Fish found dead on beach. Cape Virgins. Saw many skeletons in estuary of S. Cruz.
<u>1002.</u>	<u>Cheilio ramosus, Jen. NS.?</u>		<u>1002</u>	Fish. Said to come from the Japan Sea. A whaler. Chiloe. July.
			1007.	Fish. Above dirty “gallstone and honey yellow” posterior half of the body becoming reddish, while spots on the side and smaller ones above head. Valparaiso. July.
			1834.	Fish in Spirits of Wine “ <u>Valparariso</u> , Valparariso. July 25 th
			1008	“(,Fish bought in Market.),, Above blackish grey, indistinct bands of d° on sides; beneath white. Are found 3 or 4 times as large.
			1009.	A uniform <u>pale</u> greenish tinge, most thickly mottled with “greenish black.”
			1010	Uniform <u>pale</u> flesh colour (especially beneath) mottled with deep “reddish brown” and transverse dorsal bands of D°; Branchial covering yellowish. Inferior edge of Pectoral pink.

<u>1011.</u>	<i>Heliases crusma</i> , <u>Cur. & Val.</u>	“Ex ^d <u>1011</u> ,	Above leaden colour, beneath paler; grows considerably larger.
1012	<i>Pinguipes chilensis</i> , <u>Val.</u>	“Ex ^d <u>1012</u> .,, 1013.	D° D° fins dark D° slightly iridescent D° grow to 2 or 3 times this size.
1014	<i>Sebastes oculata</i> , <u>Val?</u> (Dried & in bad order)	1014	Under surface. Sides; Branchial covering part of fins, “Tile and carmine red,” dorsal scales pale yellowish dirty brown.
		1015	Uniform tinge pale dirty yellow with numerous angular spots of black. Above clouded with pale brown. Ventral and tips of pectoral and anal “reddish orange.” Common size.
		1016.	Sides “Cochineal red mixed with grey,” an indescribable tint, belly strongly tipped with yellow, fins pale “blackish green,” posterior half of body with numerous small scarlet dots.
<u>1017</u>	<i>Latilus jugularis</i> , Cuv. & Val. (Gony.)	“Ex ^d <u>1017</u> .,	Beneath brilliant white; head and back clouded with “purplish and carmine red” longitudinal and transverse irregular bands of D°
		1018.	Whole body silvery, back and fins with few clouds of leaden colour. Grows to 3 or 4 feet long. All the above bought in Market.
		1834	Fish in Spirits of Wine Valparaiso. August.
		1026.	Fish. Above “wood & yellow brown” with white and dark brown spots, grows more than a foot long. July.

<u>1056.</u>	<i>Atherina microlepidota</i> , Jen. <u>N.S</u>	Ex ^d	<u>1056.</u>	Fresh water fish.
<u>1075.</u>	<i>Syngnathus acicularis</i> , Jen. <u>N.S</u>		<u>1066.</u>	D° D° (Most extraordinary) Tadpole!!
			<u>1075.</u>	Fish. The two last Sep ^f & Octob ^f
				Archiiuago of Chileo. Nov ^f & Dec ^f
<u>1080</u>	<i>Ilucoetes fimbriatu</i> , Jen. <u>N.S</u>		<u>1077.</u>	Fish. Island of Lemuy Octob ^f
<u>1081</u>	<i>Gobiesox marmoratus</i> , Jen. <u>N.S</u>		<u>1080</u>	Blennius under stones
			<u>1081</u>	Sucking fish D°
			<u>1083</u>	Fish.
			<u>1116</u>	Fish tidal rocks Island of Incho North part of Cape Ires Monteo. Dec ^f
<u>1123</u>	<i>Agriopus hispidus</i> , Jen. <u>N.S</u>	Ex ^d	<u>1123</u>	Fish Hab. same as (1122) caught in middle of cove. Coloured pale "reddish orange" with black spots on the fins, and a dusky shade on back; strange appear with its bony face. D° Chonus Archipelago Jan 1135 "(South of Chiloe)
<u>1138</u>	<i>Aphritis undulatus</i> , Jen. <u>N.S</u>	Ex ^d	<u>1138</u>	Two sorts of marine fish. Lowes Harbour
<u>1139</u>	<i>Gobius ophicephalus</i> , Jen. <u>N.S</u>	Ex ^d	<u>1139</u>	Fish tidal; pale lead-colour coarsely reticulated with brown D°
			<u>1141</u>	Fish; silvery, bright, back blue. Lowes Harbour. Chiloe Jan.
			<u>1145</u>	Cabora del Cavallo. Fish same as at Chonos.
			↑	"Cz.,
<u>1146</u>	<i>Stromateus maculatus</i> , <u>Cuv. & Val.</u> ?		<u>1146</u>	Fish. Silvery, blue above with regular circular leaden spots.
			<u>1147</u>	Fish. All silvery
			<u>1148.</u>	D° Above with fine tint of purple.
			<u>1149</u>	D° Mottled reddish above, beneath white.
			<u>1150</u>	D° D°
			<u>1151</u>	D° Silvery, irregular leaden coloured marks

1153	Aspidophorus chiloensis	Ex ^d	1153	D° Above dusky
			1835	Fish in Spirits of wine Chiloe Jan.
<u>1154</u>	Syngnathus - ? - In very bad condition, & <u>thrown away</u> . -		1154	Fish
			1161	D° under stones on sea beach. Chanques Is ^d
			1188	Fish. Disc of body yellowish brown with minute spots. 4 transverse bands in front part and superior convex edge, most beautiful Cobalt blue; gody generally dark and yellowish brown - "Coast of Chili"
	1202 Blennechis fasciatus, Jen. <u>NS</u> .	Ex ^d	1201	Fish & 1202 Marine Concepcion "Chile
<u>1204</u>	Clinus crinitus, Jen. <u>NS</u>	Ex ^d	1204	Fish Coquimbo D°
<u>1211</u>	Blennechis ornatus, Jen. <u>NS</u>	Ex ^d	1211	Fish etc etc D°
			1215	Sucking fish. R. Maule "Chili,,
<u>1218. & 1220</u>	Umbrina ophicephala, Jen. NS (Bad)		1216 to 1222	Fish. Coquimbo
<u>1229</u>	Engraulis ringens, Jen. <u>NS</u>		<u>1229</u>	Fish Iquique Peru
<u>1232</u>	Exocoetus exsiliens, Bl.		<u>1232</u>	Flying fish Lat 18°S. July "_____"
				- Lima San Lorenzo July -
1238	<u>Unkn.</u> Dry & in bad order -		1238.	Fish dull lead colour. with pale transverse bands. Pectoral ventral annual caudal fins pale vermilion.
			1239	Fish dull coloured blue with numerous red spots like a trout. Pectoral and caudal orange.
			1240	Fish pale greyish blue. with blacks specks and clouds of D°. tips of fins pinkish.
			1241. 1242	Small silvery fish.

<u>1244</u>	One of <u>Siluridae</u> - very bad & <u>thrown away</u> -		<u>1244</u>	Fish ^{back} indescent green, belly white. all Fins and Barbillons reddish purple.
	pen ↓ ↓pencil ↓ Cuv. & Val ~		1246	Fish, above nearly black.
<u>1251</u>	<u>Clupea sagax</u> ? <u>Jen., N.S</u>		1251. 1252. 1253	Fish. D°
			1254. 1255	D° D°
			1258	Fish Coquimbo
1260	<u>Otolithus angusticeps</u> , <u>Jen., N.S</u>		<u>1260</u>	D° Callao
			1261	D° D°
			1835	Fish in Spirits of Wine Sep ^r Galapagos. Chatham Island
<u>1265</u>	<u>Tetrodon aerostaticus</u> , <u>Jen., N.S</u>		<u>1265</u>	Fish. Above dull green, base of Pectorals and Dorsal black, a white patch beneath the Pectorals, inflatable.
<u>1266</u>	<u>Pristipoma miles cantharhinum</u> , <u>Jen., N.S</u>	Ex ^d	<u>1266</u>	Fish. Blueish silvery.
<u>1267</u>	<u>Prionotus ruber</u> ? <u>Jen., N.S</u>	Ex ^d	<u>1267</u>	Fish. Beneath silvery white, above mottled brilliant "Tile red"
	↑		<u>1268</u>	Fish. Above and fin greenish; sides coppery, passing in belly into Salmon colour. Pectoral fins edge with dull blue. Iris yellowish brown, pupil black blue.
<u>1268</u>	<u>Latilus princeps</u> , <u>Jen., N.S</u>			
<u>1269</u>	<u>Cossyphus Darwini</u> , <u>Jen., N.S</u>	Ex ^d	<u>1269</u>	Fish. Centre of each scale pale "vermilion red" lower jaw quite white, large irregular patch above the pectorals bright yellow. Iris red, pupil blue black.
<u>1273</u>	<u>Serranus labriformis</u> , <u>Jen., N.S</u> -	Ex ^d	<u>1273</u>	Fish. Mottled brown-yellow, black and white upper and lower edge of tail, edges of ventral and dorsal ("Art. And purplish red")

<u>1274</u>	Chrysophrys taurina, Jen. <u>N.S</u>	Ex ^d	<u>1274.</u>	Fish. White with four dark brown <u>much</u> interrupted bands giving mottled appearance, d ^o coloured above head, top of d ^o , ridge of back, edges of dorsal, tail, and ventral fins, tinted with fine Azure blue.
<u>1275</u>	Serranus Galapagensis, ^{olfax} , Jen. <u>N.S</u>	Ex ^d	<u>1275.</u>	Fish common large mottled brown fish
<u>1282, 3</u>	Scorpaena histrio, Jen. <u>N.S</u>	Ex ^d	<u>1282, 1283</u>	D ^o Whole body "scarlet red," fins rather paler; small irregularly shaped light black spots; very extraordinary; are they distinct?
<u>1284</u>	Prionodes fasciatus, Jen. <u>N.S</u>	Ex ^d	<u>1284</u>	Fish, pale yellowish brown, with numerous transverse bars of which upper part reddish black; lower "vermilion red," gill covers head, and fins tinted with d ^o . "Fish, - CD
<u>1286</u>	Muraena lentiginosa (Same as 1299.)		<u>1286</u>	Eel, tidal pools, colour dark reddish purple brown, with pale, or whiteish brown spots, eyes blueish.
			1835	Fish in Spirits of Wine
				Sep ^r Galapagos. Chatham Island
<u>1287</u>	Gobius lineatus, Jen. <u>N.S.</u> 1288. Gobiesox poecilophthalmos, Jen.	Exd	<u>1287.</u> <u>1288</u>	. Fish tidal pools
1293	Tetrodon annulatus, Jen - <u>N.S</u>		1293.	Diodon, Beneath snow white, above dark brownish black; this colour is placed in broad rings one within the other on the back, so that on the side they form oblique ones which point both ways: whole upper surface spotted with darker black circular spots. Pectoral and dorsal fins yellowish brown; Iris inner edge clouded with orange. Pupil dark green - blue - made a loud grating noise.
				Cha ^r les Island
<u>1299</u>	Muraena lentiginosa, Jen. <u>N.S</u>		<u>1299</u>	Fish, fine dark purplish brown with yellow circular spots.

<u>1302</u>	Pristipoma cantharhinum, Jen. (Young)		Exd. <u>1302</u>	Fish silvery above, shaded with brown and indescient with blue; fins and iris sometimes edged with blackish brown. Flap of gill cover edged with black.
<u>1304</u>	Serranus albomaculatus, Jen. <u>N.S</u>		Exd <u>1304</u>	Fish varies[ies] much in colour. Above pale blackish green, belly white; Fins, gills covers and part of sides dirty reddish orange; on side of back 6 or 7 good-sized snow white spots, not very regular outline. In some specimens, the blackish green above becomes "dark" & is separated by a straight line from the paler under parts; Again other „specimen" coloured dirty "reddish orange and gallstone yellow" ^{CD} upper parts only rather darker, but in all white spots clear. (5 or 6 in one row and one placed above). Sometimes fins banded with orange and the ^{CD} black green, length ways. Otahiti Nov ^f
1317	Acanthurus humeralis Cuv. & Val.	Exd	Exd. <u>1317</u>	Fish. Splendid verditer blue and green.
<u>1318</u>	Scarus lepidus Jen. <u>N.S</u> 1319 Scarus globiceps, C.&V ^{Exd} 1320 Upeneus trifasciatus		Exd. <u>1318</u> , <u>1319</u> <u>1320</u>	Fish
			1835	Fish in Spirits of Wine Otahiti Nov ^f
<u>1321</u>	Caranx torvus, Jen. <u>N.S</u>	Ex ^d	<u>1321</u>	Fish.
			1324.	Extraordinary Fish
<u>1325</u> , <u>1326</u>	Ostracion meleagris, Shaw		<u>1325</u> <u>1326</u>	Fish
<u>1327</u>	Muraena <u>1328</u> Syngnathus conspicillatus, Jen		<u>1327</u> . <u>1328</u>	D°
<u>1329</u>	Balistes aculeatus, Bl. -		<u>1329</u>	D°

1330, 1331	Dules leuciscus, <u>Jen. N.S</u>	Ex ^d	<u>1330 1331</u>	<u>Fresh water Fish</u> CD Bay of Islands N. Zealand Decemb.
			1335.	Fresh water Fish
<u>1337</u>	Anguilla australis, <u>Rich.</u> bad spec.		<u>1337</u>	Fresh water Eel
<u>1339</u>	Eleotris gobioides, Val (1340 / Mesites attenuatus, <u>Jen. N.S</u>	Ex ^d	<u>1339 1340</u>	D° F.water” Fish
1341	Trigla kumu, <u>Less et Garn.</u>	Ex ^d	<u>1341</u>	Fish whole body bright red
1343	Tripterygion capito, <u>Jen. N.S</u>	Ex ^d	<u>1343</u>	Fish. Tidal rocks
1344	Acanthoclinus fuscus, Jen. New Gen.	Ex ^d	<u>1344</u>	D° D°
			1345	D° D°
	Caranx Caranx declivis georgianus			King Georges <u>Sound</u> March 1836 “New Holland”
Ex ^d	1371 / 1372 / 1368 / 1374 / 1365, 1366 /		<u>1365 to 1386</u>	Various fish caught by net in Princess Royal Harbour.
			1389	Skate, above muddy cream colour.
			1390	Fish above varied dull green, with pale D°, beneath snow white.
			1391	Fish, pale copperish brown, with water marks of a fine darker brown.
			<u>1392</u>	Fish, very pale brown, fins pale orange.
			<u>1393</u>	Fish, mottled with pale blackish green, leaning white spots
			1394	Fish. Sides fine dark green, and pale silvery green, fins tipped with red. Iris fine green, handsome, fish.

Appendix II Fish of the *Beagle* in the BMNH

Extracts from the Accession Catalogue of the Ichthyology Section, Museum of Natural History, London, for the period from July 14–25, 1917, pertaining to specimens originally listed under: “Beagle” collection. Recd. from the University Museum of Zoology, Cambr[idge].”

7.14	1	<i>Engraulus ringens</i>	(Type)	In spirit	Coast of Peru.
	2	<i>Haplochiton zebra</i>	(“)	“	Fresh Water Lake, Falkland Is.
	3	“ “	(Type)	“	Falkland Is.
	4–5	“ <i>taeniatus</i>	(“)	“	Goree Sound, Tierra del Fuego.
	6	<i>Galaxias maculatus</i>	(“)	“	Hardy Peninsula
	7–9	“ “	(Co-types)	“	Santa Cruz, Patagonia.
	10	“ <i>alpinus</i>	(Type)	“	Hardy Peninsula, Tierra del Fuego.
	11	“ <i>attenuatus</i>	(“)	“	Bay of Islands, New Zealand.
	12	<i>Congromuraena punctus</i>	(“)	“	Tierra del Fuego.
	13	<i>Muraena lentiginosa</i>	(“)	“	Charles Isd., Galapagos Archipelago
	14	<i>Tetragonopterus rutilus</i>	(Type)	“	Rio Panana, S. America.
	15	“ <i>scabripinnis</i>	(Type)	“	Rio de Janeiro, S. America.
	16–17	<i>Chirodon interruptus</i>	(“)	“	Maldonado, S. America.
	18–19. ^{19a}	<i>Callichthys paleatus</i>	(“)	“	S. America. [Note to the right of ‘S. America:’ “Specimen i.a. 19a received about 1912, but not registered then”]
	20–23	<i>Jenynsia lineata</i>	(“)	“	Maldonado, S. America.
	24	“ “	(type of <i>Fitzroyia multidentata</i>)	“	Monte Video, “
	25–26	<i>Cnestrodon decemmaculatus</i>	(type)	In spirit	Maldonado.

27	<i>Syngnathus conspicillatus</i>	(“)	“	Tahiti.
28	“ <i>acicularis</i>	(“)	“	Valparaiso.
29	“ <i>crinitus</i>	(“)	“	Bahia Blanca, N. Patagonia.
30	<i>Caranx declivis</i>	(“)	“	New Holland.
31	“ <i>torvus</i>	(type)	“	Otaheiti
32	<i>Paropsis signata</i>	(“)	“	North Patagonia.
33	<i>Percichthys laevis</i>	(“)	“	River Santa Cruz.
34–35	<i>Acanthistius patachonicus</i>	(types)	“	E. coast of Patagonia.
36	<i>Epinephelus ascensionis</i>	(type of <i>Serranus aspersus</i>)	“	Cape Verde Islands.
37	<i>Acanthoclinus littoreus</i>	(type of <i>A. fuscus</i>)	“	Bay of Islands.
38–40	“ “	(“ “ “)	“	“
41	<i>Helotes octolineatus</i>	(type)	In spirit	King George’s Sound.
42	<i>Pristipoma cantharinum</i>	(Co-type)	“	Charles Is. Galapagos Archipelago
43	“ “	(“)	“	Chatham Is. “ “
44	<i>Otolithus analis</i>	(type)	“	Callao, W. coast of S. America.
45	<i>Glyphidodon luridus</i>	(type of <i>Stegastes imbricata</i>)	“	Quail Is. Porto Praya.
46	<i>Cheilio inermis</i>	(type of <i>C. ramosus</i>)	“	
47	<i>Pseudoscarus lepidus</i>	(type)	“	Tahiti
48–49	<i>Eleginops maclovinius</i>		“	Chonos Archipelago.
50	“ “	(type of <i>Aphrites porosus</i>)	“	Coast of Patagonia.
51	<i>Pinguipes fasciatus</i>	(type)	In spirit	Coast of Patagonia
52	<i>Atherinichthys argentinensis</i>	(“)	“	S. America
53	<i>Gobius lineatus</i>	(“)	“	Galapagos Archipelago
54	<i>Gobiosoma ophicephalum</i>	(“)	“	Chonos Archipelago
55	<i>Clinus crinitus</i>	(“)	“	Coquimbo, Chile
56–57	<i>Tripterygium nigripinne</i>	types of <i>T. capito</i>)	“	Bay of Islands
58–59	<i>Petrosirtes fasciatus</i>	(types)	“	Concepcion, Chile
60–64	“ “	(types)	“	Coquimbo, Chile

Appendix II

65–66	<i>Salarias quadricornis</i>	(types)	“	Keeling Is.
67–68	<i>Phucocoetes latitans</i>	(types)	“	Falkland Is.
69	<i>Iluocoetes fimbriatus</i>	(types)	“	Archipelago of Chiloe, S. America
70	<i>Gobiesox</i>	(type)	“	Chatham Is., Galapagos Archipelago
	<i>poecilophthalmos</i>			
71–72	“ <i>marmoratus</i>	(type)	“	Archipelago of Chiloe, S. America
73	<i>Scorpaena histrio</i>	(co-type)	“	Chatham Is.
74	“ “	(“)	“	“ “
75	<i>Prionotus miles</i>	(“)	“	“ “
76	<i>Platycephalus inops</i>	(“)	“	King George’s Sound, New Holland
77–78	<i>Agonus chiloensis</i>	(type)	“	Is. of Chiloe, W. coast of S. America
79	<i>Tetrodon hispidus</i>	(type of	“	Keeling Is.
		<i>Implutus)</i>		
80	“ <i>annulatus</i>	(type)	“	Chatham Is.
81	<i>Porichthys</i>	(type)	“	Bahia Blanca, N. Patagonia
	<i>porosissimus</i>			
7.25 1	<i>Brevoortia pectinata</i>	(type)	dry	Bahia Blanca, N. Patagonia
2	<i>Sardina sagax</i>	(“)	“	Lima, San Lorenzo
3	<i>Solea jenynsii</i>	(“)	“	Buenos Ayres
4	<i>Acanthistius</i>	(type)	(dry)	South America
	<i>patachonicus</i>			
5	<i>Serranus labriformis</i>	(type)	(dry)	Chatham Is.
6	“ <i>albomaculatus</i>	(“)	(“)	Charles Is.
7	<i>Serranus olfax</i>	(“)	(“)	Chatham Is.
8	<i>Latilus princeps</i>	(“)	(“)	“

Appendix III Checklist of fish specimens, identified as collected by Charles Darwin on the *Beagle* voyage, that ought to be present in the collections of the University Museum of Zoology, Cambridge

ADRIAN FRIDAY

Curator of Vertebrates, University Museum of Zoology, Cambridge

This list is taken from a full manuscript list of *Beagle* fish that was transcribed from the relevant catalogues. **The list below includes only those specimens that should currently be in the Museum collections.** Many specimens were transferred to the British Museum (Natural History) in 1917 [see Appendix II].

The entries are mostly as found in the catalogues. Vagaries of spelling, style and punctuation have generally been retained, except where this would introduce confusion or ambiguity. Generic names have been expanded from their single-letter abbreviations where this is all that is given in the catalogue. Generic and specific names have been converted to italics for ease of reading.

Roman numerals refer to the volume numbers of the British Museum fish catalogues that were used as the basis of the Cambridge catalogues. The numbers that precede each entry are based on this volume number. Numbers refer to pages, not to individual specimens: several specimens may therefore be listed separately under the same number.

Round and square brackets are as used in the catalogue; curly brackets denote a comment included during the preparation of the list.

Most specimens were noted as present in the 1939 stock-take. Four ('dry') specimens not noted as present at the 1939 check remain missing. A few specimens not noted as present in 1939 are noted as present in subsequent years (and that information is included). Several specimens have no confirming marks from stock-taking.

The 'EXHIBITED SERIES' does not order the entries according to the British Museum catalogue. The three entries are given in the order in which they occur in the Cambridge catalogue.

Numbers in bold at the end of the entries are the field numbers assigned by Charles Darwin as reported in Jenyns' manuscript *Notes on the Fishes Collected by Chas. Darwin Esq. In the Voyage of H.M.S. Beagle Between the years 1826 and 1836; by the Rev. Leonard Jenyns F.L.S. etc. 1842.* This volume is in the archives of the University Museum of Zoology, Cambridge. Other comments on or from the Jenyns MS are also given in bold. Most specimens could be unambiguously united with their field numbers.

Catalogue of 'NON-EXHIBITED SERIES'

I

- I.133 *Serranus goreensis*, Cuv. & Val. C. Verde Islands. {1939} 17
 I.181 *Genyoge marginata*. Keeling Is. {1939} 1433 As *Diacope marginata*.
 I.253 *Arripis (Centropristes) georgianus*. King George's Sound. New Holland. {1939} 1371
 I.266 *Dules auriga*, C. & V. Maldonado Bay. S. America. {1939} 696
 I.270 *Dules malo* = "*D. leuciscus*", Jenyns (2) River Matavai, Tahiti. "The correct name for this species is *Kuhlia marginata*, Cuv. & Val. C. Tate Regan", Mar. 1. 1913. {1939} 1331
 I.403 *Mulloidies flavolineatus*, Lacep. = "*Upeneus flavolineatus*, Jenyns". Keeling Is. Indian Ocean. {1939} 1441 As *Upeneus flavolineatus*.
 I.407 *Upeneus trifasciatus*, Lacep. Tahiti, Pacific Ocean. {1939} 1320
 I.409 *Upeneus prayensis*, C. & V. Porto Praya. C. Verde Islands. {1939} 18
 I.434 *Haplodactylus punctatus*. 7 Valparaiso, Coast of Chile. {1939} No field number or locality given. As *Aplodactylus*.

II

- II.6 *Chaetodon setifer* (2). Keeling Islands. Indian Ocean. 1836. {1939} 1431
 II.105 *Sebastes oculatus*, C. & V. Dry. Valparaiso. {Not ticked, 1939; not found 1999} 1014
 II.130 (genus only) *Apistus* sp. Dry. [skeleton] King George's Sound. New Holland. {Not ticked, 1939; but noted as Mus. drawers 23/1. 1980.} 1391 & 1386 both given.
 II.139 *Agriopus hispidus*, Jenyns. (2). TYPE. Archipelago of Chiloe. W. coast of S. America. {1939} 1123
 II.193 *Prionotus punctatus*, C. & V. Bay of Rio de Janeiro, E. coast of S. America. {1939} 269
 II.248 *Percophis brasiliensis*, Quoy & Gaim. Coast of Brazil. {1939} 347 or 692 As P. *brasiliensis*. 347 is given as 'Coast of Patagonia. In Mus. Zool. Soc. Lond.' 692 is given as 'Maldonado.'
 II.252 *Pinguipes chilensis*, Molina. Valparaiso, Chile. {1939} 1012
 II.253 *Latilus jugularis*, Cuv. & Val. Valparaiso, Chile. {1939} 1017
 II.253 *Latilus jugularis*, Cuv. & Val. Valparaiso, Chile. {1939} ? also 1017
 II.276 *Umbrina arenata*, C. & V. Bahia Blanca, E. coast of S. America. {1939} 392
 II.276 *Umbrina arenata*, C. & V. Maldonado, Rio Plataq. {?} S. America. {1939} 714
 II.289 *Sciaena adusta*, Agass. & Spix. = "*Corvina adusta*, Jenyns." Dry. Montevideo. {1964} As *Corvina adusta*. No specimen with this locality listed. {This must, however, be field number 458 from Darwin's entry.}
 II.289 *Sciaena adusta*, Agass. & Spix. Maldonado Bay, Rio Plata, South America. F.2601 {1939} 695 As *Corvina adusta*.
 II.309 *Otolithus guatucupa*, C. & V. Maldonado Bay, Rio Plata, South America. {1939} 694
 II.398 *Stromateus maculatus*, C. & V. Id of Chiloe, W. Coast of S. America. {1939} 1146
 II.440 *Caranx georgianus*, C. & V. (2). King Georges Sound. New Holland. {1939} 1365 & 1366
 II.468 *Seriolichthys ("Seriola") bipinnulatus*, Quoy & Gaim ["Freycinet, Voy. Zool. pi. 61, fig. 3"] Dry. Keeling Id. Indian Ocean. {1980} 1423 As *Seriola bipinnulatus*.
 II.495 *Psenes leucurus*, 7 {the query probably refers to the species identification} C. & V. S Atlantic Ocean. {1939} 156 & 157 Not identified to species.

III

- III.114 *Eleotris gobioides*, Cuv. & Val. New Zealand. {1939} **1339 Bay of Islands, N. Zealand.**
Fresh-water.
- III.218 *Blennius sanguinolentus* = “*B. palmicornis*, Cuv. & Val.” Quail Id. {1939} **44 parvicornis or palmicornis** {i.e. **Jenyns offers a choice of spelling.**}
- III.242 *Salaria atlanticus* (2) [Described by Jenyns] [Jenyns MS pp. 71 & 72. C.Verde Is.]{1939} **19 & 20**
- III.254 *Salaria vomerinus*, C. & V. Porto Praya, C. Verde Is. {1939} **21**
- III.327 *Acanthurus triostegus*, L. Keeling Is. Indian Ocean. {1939} **1413**
- III.336 *Acanthurus olivaceus* = “*A. humeralis*, C. & V.” [Specimen described by Jenyns] Otaheiti. {1939} **1317 As humeralis.**
- III.403 *Atherinichthys microlepidota*, Jenyns. TYPE. Valparaiso. {1939} **1056 As Atherina microlepidota.**
- III.405 *Atherinichthys incisa*, Jenyns. TYPE. N. Patagonia. {1939} **367**
- III.409 genus only. *Mugil* sp. Dry. Keeling Is. {1980} **1440**
- III.423 *Mugil liza*, C. & V. Dry. Montevideo. {1980} **393**
- III.465 *Agonostoma forsteri*. Dry. = “*Dajaus diemensis*, Richards.” King George’s Sound, New Holland. {1980} **1378 As Dajaus diemensis Richardson.**

IV

- IV.61 *Heliastes crusma*, C. & V. Chili. {1939} **1011 As Heliasus.**
- IV.208 genus only. *Scarus*? “Not named in Zool. of ‘Beagle’.” Jenyns MS p. 94. Labelled “Voyage of Beagle, p. 109. Keeling Is. Indian Ocean. 1836”. {1939} **1430**
- IV.224 *Pseudoscarus globiceps*, C. & V. [Tahiti] TYPE of Species. {1939} **1319 As Scarus globiceps.**
{Jenyns does not give this as a TYPE, but gives ‘C. & V.’ The later addition of the words ‘TYPE of Species’ to the Cambridge catalogue must be an error.}
- IV.256 *Gerres gula*, C. & V. Rio de Janeiro, S. America. {1939} **179**
- IV.290 “*Chromis facetus*, Jenyns.” TYPE. = *Heros facetus*. Maldonado, mouth of Rio Plata. {1939} **660 As Chromis facetus.**
- IV.407 genus only. *Rhombus* sp. Dry. Bahia Blanca. {Not ticked 1939; not found 1999} **395**
- IV.438 *Pleuronectes (Platessa)* sp. Dry. King George’s Sound, New Holland. {Not ticked 1939; not found 1999} **1381 As Platessa.**
- IV.491 *Plagusia* sp. Dry. Coast of Patagonia. {Not ticked 1939; not found 1999} **480 As Achirus {Plagusia}.**

V

- V.121 *Pimelodus gracilis*, Val. Rio de Janeiro, S. America. {1939} **180 ‘Running Brooks’ added to locality.**
- V.132 *Pimelodus exsudans*, Jenyns. TYPE. Rio de Janeiro, S. America. {1939} **No field number given.**
- V.321 *Tetragonopterus abramis*, Jenyns. TYPE. Rio Parana, S. America. {1939} **747**
- V.329 *Tetragonopterus taeniatus*, Jenyns. TYPE. Rio de Janeiro, S. America. {1939} **181 & 182**

Appendix III

V.356 *Xiphorhamphus jenynsii*, Gunth. = "*Hydrocyon hepsetus*, Jenyns. TYPE". Fresh-water lake, Maldonado, Mouth of the Plata River, S. Am. {1939} **661 As *Hydrocyon hepsetus***.

VI

VI.346 *Poecilia unimaculata*, Val. (several) Rio de Janeiro, S. America. {1939} ? **210 or 228**

VI.346 *Poecilia unimaculata*, Val. (2) Rio de Janeiro, S. America. {1939} ? **210 and/or 228**

VII

VII.413 [doubtful species No. 24] *Clupea fuegensis*, Jenyns. TYPE. Tierra del Fuego. {1939} **838**

VII.442 *Clupea arcuata*, Jenyns. (2) TYPES. Bahia Blanca, N. Patagonia. {1939} **416**

VIII

VIII.36 *Anguilla australis*, Richards. B. of Islands, New Zealand. {1939} **1337 Authority given as 'Richardson'**.

VIII.93 genus only. *Muraena* sp. [Jenyns MS. p. 133] Quail Id., B. of Porto Praya, C. Verde Is. [Labelled "Voyage of Beagle, p. 145"] {1939} **46**

VIII.93 genus only. *Muraena* sp. [Jenyns MS. p. 134] Tahiti. ["Voyage of Beagle, p. 146"] {1939} **1327**

VIII.102 *Muraena ocellata* = *Gymnothorax ocellatus*, Spix & Agass. Rio de Janeiro, S. America. {1939} **301**

VIII.215 *Balistes vetula*. S. Atlantic Ocean. [Labelled "Wrongly named, but important as type of Jenyns' description".] {1939} **147 & 149**

VIII.223 *Balistes aculeatus*. Tahiti. {1939} **1329**

VIII.229 *Aleuterius maculosus*, Richards. King George's Sound, New Holland. {1939} **1393 As *Aleuterus maculosus*. {Jenyns does give 'Richards.'}**

VIII.244 *Monacanthus auraudi* (2) TYPE of "*Aluterus velutinus*, Jenyns". King George's Sound, New Holland. {1939} **1392 & 1380 As *Aluterus velutinus***.

VIII.261 *Ostracion punctatus*, Schn. (2) Tahiti. {1939} **1325 & 1326**

VIII.287 *Tetrodon angusticeps*, Jen. TYPE. Chatham Id. Galapagos Archip'o {1939} **1265**

VIII.294 *Tetrodon stellatus*, juv. = "*T. aerostacius*, Jen." TYPE. {1939} **No field number or locality given.**

VIII.310 *Chilomycterus geometricus*, Bl. {?} Schn. = "*Diodon rivulatus*, Cuv." Maldonado, S. America. {1939} **723 As *Diodon rivulatus***.

VIII.311 *Chilomycterus* ("*Diodon*") *antennatus*, Cuv. Bahia, Brazil. {1939} **132**

VIII.315 *Atopomycterus nychthemerus* = "*Diodon nichthemerus*, Jenyns". {1939} **No field number or locality given. As *Diodon nichthemerus***.

VIII.511 *Myxine australis*, Jenyns. TYPE. Goree Sound, Tierra del Fuego. AG29.21/1 {1939} **515**

Catalogue of 'EXHIBITED SERIES'

IV.261 *Gerres oyena* (F.2349) Spirit. Keeling Island, Indian Ocean. [Spirit Stores] **1432**

II.289 *Sciaena adusta* (F.2601) {that no. crossed out} Spirit. Maldonado Bay, Rio Plata, S. America. Re-exhibited as F.2601 {See duplicated entry above} **695**

II.204 *Triglia kumu* (F.3093) Dried. New Zealand. {Drawers 23/15, 1980} **1341**