

1 References

- 2 Abu-Hakima, R. (1987) Aspects of the reproductive biology of the grouper, *Epinephelus*
3 *tauvina* (Forsk), in Kuwaiti waters. *Journal of Fish Biology*, **30**, 213–222.
- 4 Abu-Hakima, R. (1984) Some aspects of the reproductive biology of *Acanthopagrus* spp.
5 (Family: Sparidae). *Journal of Fish Biology*, **25**, 515–526.
- 6 Ahlstrom, E.H. (1956) Eggs and larvae of anchovy, jack mackerel, and Pacific mackerel. *Cal-*
7 *COFI Reports*, **5**, 33–42.
- 8 Ahlstrom, E.H. (1972) Kinds and abundance of fish larvae in the Eastern Tropical Pacific on
9 the second multivessel EASTROPAC survey, and observations on the annual cycle of larval
10 abundance. *Fishery Bulletin*, **70**, 1153–1242.
- 11 Akazaki, M. (1957) Biological studies on a dragonet, *Synchiropus altivelis* (Temminck et
12 Schlegel). *Japanese Journal of Ichthyology*, **5**, 146–152.
- 13 Aprieto, V.L. (1974) Early development of five carangid fishes of the Gulf of Mexico and the
14 South Atlantic coast of the United States. *Fishery Bulletin*, **72**, 415–443.
- 15 Arora, H.L. (1948) Observations on the habits and early life history of the batrachoid fish,
16 *Porichthys notatus* Girard. *Copeia*, **1948**, 89–93.
- 17 Baglin, R.E.J. (1982) Reproductive biology of western Atlantic bluefin tuna. *Fishery Bulletin*,
18 **80**, 121–134.
- 19 Barlow, G.W. (1987) Spawning, eggs and larvae of the longnose filefish *Oxymonacanthus*
20 *longirostris*, a monogamous coralivore. *Environmental Biology of Fishes*, **20**, 183–194.
- 21 Barnhart, P.S. (1932) Notes on the habits, eggs and young of some fishes of southern Cali-
22 fornia. *Bulletin of the Scripps Institution of Oceanography of the University of California*, **3**,
23 87–99.
- 24 Barnhart, P.S. (1927) Pelagic fish eggs off La Jolla, California. *Bulletin of the Scripps Institu-*
25 *tion of Oceanography of the University of California*, **1**, 91–92.
- 26 Bell, L.J. & Colin, P.L. (1986) Mass spawning of *Caesio teres* (Pisces: Caesionidae) at

- 27 Enewetak Atoll, Marshall Islands. *Environmental Biology of Fishes*, **15**, 69–74.
- 28 Bengtson, D.A., Barkman, R.C. & Berry, W.J. (1987) Relationships between maternal size,
29 egg diameter, time of spawning season, temperature, and length at hatch of Atlantic silverside,
30 *Menidia menidia*. *Journal of Fish Biology*, **31**, 697–704.
- 31 Berrien, P.L. (1975) A description of atlantic mackerel, *Scomber scombrus*, eggs and early
32 larvae. *Fishery Bulletin*, **73**, 186–192.
- 33 Bolin, R.L. (1941) Embryonic and early larval stages of the cottid fish *Orthonopias triacis*
34 Starks and Mann. *Stanford Ichthyological Bulletin*, **2**, 73–82.
- 35 Bolin, R.L. (1930) Embryonic development of the labrid fish *Oxyjulis californicus* Gnther.
36 *Copeia*, **1930**, 122–128.
- 37 Breder, C.M.J. (1942) On the reproduction of *Gobiosoma robustum* Ginsburg. *Zoologica*, **27**,
38 61–64.
- 39 Breining, T. & Britz, R. (2000) Egg surface structure of three clingfish species, using scanning
40 electron microscopy. *Journal of Fish Biology*, **56**, 1129–1137.
- 41 Brock, V.E. (1954) Some aspects of the biology of the aku, *Katsuwonus pelamis*, in the
42 Hawaiian Islands. *Pacific Science*, **8**, 94–104.
- 43 Brothers, E.B. & McFarland, W.N. (1981) Correlations between otolith microstructure,
44 growth, and life history transitions in newly recruited French grunts [*Haemulon flavolineatum*
45 (Desmarest), Haemulidae]. *Rapports et procs-verbaux des runions Comission Internationale*
46 *pour LExploration Scientifique de la Mer Mditerrane*, **178**, 369–374.
- 47 Brown, J.D. (1972) A comparative life history study of four species of pipefishes (Family
48 Syngnathidae) in Florida.
- 49 Buckley, L.J., Smigielski, A.S., Halavik, T.A., Caldaroni, E.M., Burns, B.R. & Laurence,
50 G.C. (1991) Winter flounder *Pseudopleuronectes americanus* reproductive success. II. Ef-
51 fects of spawning time and female size on size, composition and viability of eggs and larvae.
52 *Marine Ecology Progress Series*, **74**, 125–135.
- 53 Budd, P.L. (1940) Development of the eggs and early larvae of six California fishes. *Fish Bul-*

- 54 *letin*, **56**, 1–53.
- 55 Buag, D.M. (1956) Spawning habits of some Philippine tuna based on diameter measurements
56 of the ovarian ova. *The Philippine Journal of Fisheries*, **4**, 145–177.
- 57 Cai, N., Xu, Q., Yu, F., Wu, X. & Sun, G. (1984) Studies on the reproduction of the seahorse
58 *Hippocampus trimaculatus*. *Hai yang ke hsueh ji kan, Studia Marina Sinica*, **23**, 83–93.
- 59 Chan, E.H. & Chua, T.E. (1980) Reproduction in the greenback grey mullet, *Liza subviridis*
60 (Valenciennes, 1836). *Journal of Fish Biology*, **16**, 505–519.
- 61 Charney, P. (1976) Oral brooding in the cardinal-fishes *Phaeoptyx conklini* and *Apogon macu-*
62 *latus* from the Bahamas. *Copeia*, **1976**, 198–200.
- 63 Chavance, P., Flores-Coto, C. & Sanchez-Iturbe, A. (1984) Early life history and adult
64 biomass of sea bream in the Terminos Lagoon, southern Gulf of Mexico. *Transactions of the*
65 *American Fisheries Society*, **113**, 166–177.
- 66 Chubb, C.F. & Potter, I.C. (1984) The reproductive biology and estuarine movements of the
67 gizzard shad, *nematalosa vlaminghi* (Munro). *Journal of Fish Biology*, **25**, 527–543.
- 68 Cipria, G. (1939) Uova, sviluppo embrionale e post-embrionale di *Scarus cretensis* C. V. ot-
69 tenue per fecondazione artificiale. *Regio comitato talassografico italiano*, **261**, 3–7.
- 70 Clark, F.N. (1929) The life history of the California jack smelt *Atherinopsis californiensis*.
71 *Fish Bulletin*, **16**, 2–23.
- 72 Clark, F.N. (1925) The life history of *Leuresthes Tenuis*, an atherine fish with tide controlled
73 spawning habits. *Fish Bulletin*, **10**, 1–58.
- 74 Clarke, T.A. (1989) Seasonal differences in spawning, egg size, and early development time of
75 the Hawaiian anchovy or nehu, *Encrasicholina purpurea*. *Fishery Bulletin*, **87**, 593–600.
- 76 Colin, P.L. (2010) Aggregation and spawning of the humphead wrasse *Cheilinus undulatus*
77 (Pisces: Labridae): General aspects of spawning behaviour. *Journal of Fish Biology*, **76**, 987–
78 1007.
- 79 Colin, P.L. (1982) Spawning and larval development of the hogfish, *Lachnolaimus maximus*

- 80 (Pisces: Labridae). *Fishery Bulletin*, **80**, 853–862.
- 81 Colin, P.L. & Bell, L.J. (1991) Aspects of the spawning of labrid and scarid fishes (Pisces:
82 Labroidei) at Enewetak Atoll, Marshall Islands with notes on other families. *Environmental*
83 *Biology of Fishes*, **31**, 229–260.
- 84 Colin, P.L. & Clavijo, I.E. (1988) Spawning activity of fishes producing pelagic eggs on a
85 shelf edge coral reef, southwestern Puerto Rico. *Bulletin of Marine Science*, **43**, 249–279.
- 86 Colin, P.L., Shapiro, D.Y. & Weiler, D. (1987) Aspects of the reproduction of two groupers,
87 *Epinephelus guttatus* and *E. striatus* in the West Indies. *Bulletin of Marine Science*, **40**, 220–
88 230.
- 89 Colton, J.B. & Honey, K.A. (1963) The eggs and larval stages of the butterfish, *Poronotus*
90 *triacanthus*. *Copeia*, **1963**, 447–450.
- 91 Crawford, C.M. (1986) Development of eggs and larvae of the flounders *Rhombosolea tapi-*
92 *rina* and *Ammotretis rostratus* (Pisces: Pleuronectidae). *Journal of Fish Biology*, **29**, 325–334.
- 93 Crawford, S.S. & Balon, E.K. (1994) Alternative life histories of the genus *Lucania*: 3. An
94 ecomorphological explanation of altricial (*L. parva*) and precocial (*L. goodei*) species. *Envi-*
95 *ronmental Biology of Fishes*, **41**, 369–402.
- 96 Crivelli, A.J. & Britton, R.H. (1987) Life history adaptations of *Gasterosteus aculeatus* in a
97 Mediterranean wetland. *Environmental Biology of Fishes*, **18**, 109–125.
- 98 Crossland, J. (1981) Fish eggs and larvae of the Hauraki Gulf, New Zealand. *Fisheries Re-*
99 *search Bulletin*, **23**, 11–61.
- 100 Cummings, W.C. (1968) Reproductive habits of the sergeant major, *Abudefduf saxatilis*,
101 (Pisces, Pomacentridae) with comparative notes on four other damselfishes in the Bahama
102 Islands.
- 103 Cunningham, J.E.R. & Balon, E.K. (1985) Early ontogeny of *Adinia xenica* (Pisces, Cyprin-
104 odontiformes): 1. The development of embryos in hiding. *Environmental Biology of Fishes*,
105 **14**, 115–166.
- 106 Dalzell, P. (1985) Some aspects of the reproductive biology of *Spratelloides gracilis*

107 (Schlegel) in the Ysabel Passage, Papua New Guinea. *Journal of Fish Biology*, **27**, 229–237.

108 Daoulas, C. & Economou, A.N. (1986) Seasonal variation of egg size in the sardine, *Sardino*
 109 *pilchardus* Walb., of the Saronikos Gulf: Causes and a probable explanation. *Journal of Fish*
 110 *Biology*, **28**, 449–457.

111 de Ciechomski, J. & Cassia, M.C. (1980) Reproduccion y fecundidad del surel (*Trachurus pic-*
 112 *turatus australis*). *Revista de Investigacin y Desarrollo Pesquero*, **2**, 39–45.

113 de Ciechomski, J.D. (1966) Development of the larvae and variations in the size of the eggs
 114 of the argentine anchovy, *Engraulis anchoita* Hubbs and Marini. *ICES Journal of Marine Sci-*
 115 *ence*, **30**, 281.

116 DeMartini, E.E. & Anderson, M.E. (1980) Comparative survivorship and life history of
 117 painted greenling (*Oxylebius pictus*) in Puget Sound, Washington and Monterey Bay,
 118 California. *Environmental Biology of Fishes*, **5**, 33–47.

119 Demir, M. (1961) On the eggs and larvae of the *Trachurus trachurus* (L.) and *Trachurus*
 120 *mediterraneus* (Stdhnr.) from the Sea of Marmara and the Black Sea. *Rapports et procs-*
 121 *verbaux des runions Comission Internationale pour LExploration Scientifique de la Mer*
 122 *Mditerrane*, **16**, 317–320.

123 Demir, M. & Demir, N. (1961) *Contribution to the knowledge of the eggs of the common*
 124 *bonito* (*Sarda sarda* Bloch). *Proceedings and technical papers (general fisheries council for*
 125 *the mediterranean)*, pp. 213–218.

126 Devauchelle, N., Alexandre, J., Le Corre, N. & Letty, Y. (1987) Spawning of sole (*Solea*
 127 *solea*) in captivity. *Aquaculture*, **66**, 125–147.

128 D’Ancona, U. (1932) Uova, larvi e stadi giovanilli di Teleostei. *Fauna e Flora del Golfo di*
 129 *Napoli*, **38**, 281–298.

130 Earll, R.E. (1881) *The Spanish mackerel*, *Cybiium maculatum* (Mitch.) AG.: *Its natural history*
 131 *and artificial propagation with an account of the origin and development of the fishery. Na-*
 132 *tional Oceanic and Atmospheric Administration report of the the United States Commissioner*

- 133 of *Fisheries* (ed. by S.F. Baird), pp. 395–426. Government printing office, San Diego.
- 134 Eda, H., Fujiwara, T. & Takita, T. (1994) Embryonic, larval and juvenile development in
 135 laboratory-reared dragonets, *Repomucenus beniteguri*. *Japanese Journal of Ichthyology*, **40**,
 136 465–473.
- 137 Erdman, D.S. (1968) Spawning cycle, sex ratio, and weights of blue marlin off Puerto Rico
 138 and the Virgin Islands. *Transactions of the American Fisheries Society*, **97**, 131–137.
- 139 Evans, R.D., Russ, G.R. & Kritzer, J.P. (2008) Batch fecundity of *Lutjanus carponotatus* (Lut-
 140 janidae) and implications of no-take marine reserves on the Great Barrier Reef, Australia.
 141 *Coral Reefs*, **27**, 179–189.
- 142 Feeney, R.F. (1987) Development of the eggs and larvae of the yellowchin sculpin, *Icelinus*
 143 *quadriseiatus* (Pisces: Cottidae). *Fishery Bulletin*, **85**, 201–212.
- 144 Finucane, J.H., Collins, L.A., Brusher, H.A. & Saloman, C.H. (1986) Reproductive biology of
 145 king mackerel, *Scomberomorus cavalla*, from the southeastern United States. *Fishery Bulletin*,
 146 **84**, 841–850.
- 147 Fishelson, L. & Gon, O. (2008) Comparative oogenesis in cardinal fishes (Apogonidae, Per-
 148 ciformes), with special focus on the adaptive structures of the egg envelopes. *Environmental*
 149 *Biology of Fishes*, **81**, 397–414.
- 150 Fry, D.H.J. (1936) A description of the eggs and larvae of the Pacific mackerel (*Pneu-*
 151 *matophorus diego*). *California fish and game*, **22**, 28–29.
- 152 Fujita, S. & Ueno, M. (1954) On the development of the egg and prelarval stages of *Siganus*
 153 *fuscescens* (Houttuyn) by artificial insemination. *Japanese Journal of Ichthyology*, **3**, 129–
 154 132.
- 155 Gagliano, M., McCormick, M.I. & Meekan, M.G. (2007) Temperature-induced shifts in selec-
 156 tive pressure at a critical developmental transition. *Oecologia*, **152**, 219–225.
- 157 Garzn, J.F. & Acero, A.P. (1986) Notes on the fish *Synagrops trispinosus* (Perciformes:
 158 Acropomatidae) from the Colombian Caribbean. *Japanese Journal of Ichthyology*, **33**,

159 316–318.

160 Geevarghese, C. & John, P.A. (1983) Maturation and spawning of a gobiid fish, *Oligolepis*
 161 *acutipennis* (Cuv. & Val.), from the south-west coast of India. *Journal of Fish Biology*, **23**,
 162 611–624.

163 Gladstone, W. & Westoby, M. (1988) Growth and reproduction in *Canthigaster valentini*
 164 (Pisces, Tetraodontidae): A comparison of a toxic reef fish with other reef fishes. *Environ-*
 165 *mental Biology of Fishes*, **21**, 207–221.

166 Gordina, A.D., Nikolskiy, V.N., Niermann, U., Bingel, F. & Subbotin, A.A. (1997) New data
 167 on the morphological differences of anchovy eggs (*Engraulis encrasicolus* L) in the Black
 168 Sea. *Fisheries Research*, **31**, 139–145.

169 Greeley, M.S.J., Calder, D.R. & Wallace, R.A. (1987) Oocyte growth and development in the
 170 striped mullet, *Mugil cephalus*, during seasonal ovarian recrudescence: Relationship to fecun-
 171 dity and size at maturity. *Fishery Bulletin*, **85**, 187–200.

172 Green, B.S. & McCormick, M.I. (2001) Ontogeny of the digestive and feeding systems in the
 173 anemonefish *Amphiprion melanopus*. *Environmental Biology of Fishes*, **61**, 73–83.

174 Green, B.S., Anthony, K.R.N. & McCormick, M.I. (2006) Position of egg within a clutch is
 175 linked to size at hatching in a demersal tropical fish. *Journal of Experimental Marine Biology*
 176 *and Ecology*, **329**, 144–152.

177 Grimes, C.B. & Huntsman, G.R. (1980) Reproductive biology of the vermilion snapper,
 178 *Rhomboplites aurorubens*, from North Carolina and South Carolina. *Fishery Bulletin*, **78**,
 179 137–146.

180 Hales, L.S.J. (1987) Distribution, abundance, reproduction, food habits, age, and growth of
 181 round scad, *Decapterus punctatus*, in the South Atlantic Bight. *Fishery Bulletin*, **85**, 251–268.

182 Harada, T., Mizuno, O., Miyashita, S. & Furutani, H. (1971) On the artificial fertilization and
 183 rearing of larvae in yellowfin tuna. *Bulletin of the Faculty of Agriculture, Kinki University*, **4**,
 184 145–151.

185 Hettler, W.F. (1984) Description of eggs, larvae, and early juveniles of gulf menhaden,

186 *Brevoortia patronus*, and comparisons with atlantic menhaden, *B. tyrannus*, and yellowfin
 187 menhaden, *B. smithi*. *Fishery Bulletin*, **82**, 85–95.

188 Hildebrand, S.F. & Cable, L.E. (1930) *Development and life history of fourteen teleostean*
 189 *fishes at Beaufort, N. C.*, United States Government Printing Office, Washington, DC, USA.

190 Hildebrand, S.F. & Cable, L.E. (1938) Further notes on the development and life history of
 191 some teleosts at Beaufort, N. C. *Fishery Bulletin*, **48**, 505–642.

192 Inoue, M., Iwasaki, Y., Aoki, M., Kouhei, T. & Nagaoka, H. (1974) Some notes on the arti-
 193 ficial fertilization and rearing of larvae in frigate mackerel and yellowfin tuna, cultured with
 194 seawater-acclimatized *Chlorella* as a basic diet. *Journal of the Faculty of Marine Science and*
 195 *Technology Tokai University*, **8**, 27–36.

196 Joseph, E.B., Massmann, W.H. & Norcross, J.J. (1964) The pelagic eggs and early larval
 197 stages of the black drum from Chesapeake Bay. *Copeia*, **1964**, 425–434.

198 Kamiya, T. (1925) The pelagic eggs and larvae of fishes in the Tateyama Bay (Pref. Chiba).
 199 3rd report. *Journal of the Imperial Fisheries Institute*, **21**, 27–36.

200 Kavanagh, K.D. (2000) Larval brooding in the marine damselfish *Acanthochromis polya-*
 201 *canthus* (Pomacentridae) is correlated with highly divergent morphology, ontogeny and life-
 202 history traits. *Bulletin of Marine Science*, **66**, 321–337.

203 Kawase, H. (2008) Reproductive ecology of the black reef leatherjacket, *Eubalichthys bu-*
 204 *cephalus* (Monacanthidae) in temperate Australia. *Ichthyological Research*, **55**, 294–298.

205 Kawase, H. (2003) Spawning behavior and biparental egg care of the crosshatch triggerfish,
 206 *Xanthichthys mento* (Balistidae). *Environmental Biology of Fishes*, **66**, 211–219.

207 Kawase, H. (2005) Spawning behavior of the pygmy leatherjacket *Brachaluteres jacksonianus*
 208 (Monacanthidae) in southeastern Australia. *Ichthyological Research*, **52**, 194–197.

209 Kawase, H. & Nakazono, A. (1994) Embryonic and pre-larval development and otolith incre-
 210 ments in two filefishes, *Rudarius ercodes* and *Paramonacanthus japonicus* (Monacanthidae).
 211 *Japanese Journal of Ichthyology*, **41**, 57–63.

212 Kiliachenkova, V.A. (1970) Development and distribution of eggs and larvae of *Trachurus*

213 *trachurus* L. *Rapports et procs-verbaux des runions Comission Internationale pour LExplo-*
 214 *ration Scientifique de la Mer*, **159**, 194–198.

215 Kimura, S. & Kiriyaama, T. (1993) Development of eggs, larvae and juveniles of the labrid
 216 fish, *Halichoeres poecilopterus*, reared in the laboratory. *Japanese Journal of Ichthyology*, **39**,
 217 371–377.

218 Kimura, S., Nakayama, Y. & Kiriyaama, T. (1998) Comparison of laboratory-reared eggs, em-
 219 bryos and larvae of five labrid fishes. *Environmental Biology of Fishes*, **52**, 187–201.

220 King, D.P.F., O’Toole, M.J. & Robertson, A.A. (1977) Early development of the South
 221 African maasbanker *Trachurus trachurus* at controlled temperatures. *Fisheries Bulletin*, **9**,
 222 16–22.

223 Kokita, T. (2003) Potential latitudinal variation in egg size and number of a geographically
 224 widespread reef fish, revealed by common-environment experiments. *Marine Biology*, **143**,
 225 593–601.

226 Kokita, T. & Nakazono, A. (2000) Seasonal variation in the diel spawning time of the coral
 227 reef fish *Oxymonacanthus longirostris* (Monacanthidae): Parental control of progeny develop-
 228 ment. *Marine Ecology Progress Series*, **199**, 263–270.

229 Kumne, S. (1962) A note on the fertilization of bigeye tuna, *Parathunnus mebachii* (Kishi-
 230 nouye). *Report of Nankai Regional Fisheries Research Laboratory*, **15**, 79–84.

231 Kuntz, A. (1914) Notes on the embryology and larval development of five species of
 232 teleostean fishes. *Fishery Bulletin*, **34**, 409–429.

233 Kuntz, A. (1913) The embryology and larval development of *Bairdiella chrysura* and *An-*
 234 *chovia mitchilli*. *Fishery Bulletin*, **33**, 3–19.

235 Kuntz, A. & Radcliffe, L. (1917) Notes on the embryology and larval development of twelve
 236 teleostean fishes. *Fishery Bulletin*, **36**, 89–134.

237 Kuwamura, T. (1997) Evolution of female egg care in harem triggerfish, *Rhinecanthus ac-*
 238 *uleatus*. *Ethology*, **103**, 1015–1023.

239 Lahaye, J. (1971) L’ovogenese chez *Nerophis lumbriciformis* (Pennant, 1776). Le cycle sexuel.

- 240 *Cahiers de Biologie Marine*, **12**, 239–254.
- 241 Lang, E.T. & Fitzhugh, G.R. (2015) Oogenesis and fecundity type of gray triggerfish in the
242 Gulf of Mexico. *Marine and Coastal Fisheries*, **7**, 338–348.
- 243 Laroche, J.L. & Richardson, S.L. (1980) Reproduction of northern anchovy, *Engraulis mor-*
244 *dax*, off Oregon and Washington. *Fishery Bulletin*, **7**, 603–618.
- 245 Laroche, W.A. (1980) Development of larval smooth flounder, *Liopsetta putnami*, with a re-
246 description of development of winter flounder, *Pseudopleuronectes americanus* (family Pleu-
247 ronectidae). *Fishery Bulletin*, **78**, 897–909.
- 248 Lassig, B. (1976) Field observations on the reproductive behaviour of *Paragobiodon* spp.
249 (Osteichthyes: Gobiidae) at Heron Island Great Barrier Reef. *Marine Behaviour and Physi-*
250 *ology*, **3**, 283–293.
- 251 Leis, J.M. (1977) Development of the eggs and larvae of the slender mola, *Ranzania laevis*
252 (Pisces, Molidae). *Bulletin of Marine Science*, **27**, 448–466.
- 253 Leis, J.M. (1978) Systematics and zoogeography of the porcupinefishes (*Diodon*, Diodonti-
254 dae, Tetraodontiformes), with comments on egg and larval development. *Fishery Bulletin*, **76**,
255 535–567.
- 256 Leis, J.M. & Moyer, J.T. (1985) Development of eggs, larvae and pelagic juveniles of three
257 indo-pacific ostraciid fishes (Tetraodontiformes): *Ostracion meleagris*, *Lactoria fornasini* and
258 *L. diaphana*. *Japanese Journal of Ichthyology*, **32**, 189–202.
- 259 Lobel, P.S. & Johannes, R.E. (1980) Nesting, eggs and larvae of triggerfishes (Balistidae).
260 *Environmental Biology of Fishes*, **5**, 251–252.
- 261 Locatello, L. & Neat, F.C. (2005) Reproductive allocation in *Aidablennius sphynx* (Teleostei,
262 Blenniidae): Females lay more eggs faster when paired with larger males. *Journal of Experi-*
263 *mental Zoology Part A: Comparative Experimental Biology*, **303A**, 922–926.
- 264 MacGinitie, G.E. (1939) The natural history of the blind goby, *Typhlogobius californiensis*
265 Steindac. *The American Midland Naturalist*, **21**, 489–505.
- 266 Mansueti, R.J. (1962) Eggs, larvae, and young of the hickory shad, *Alosa mediocris*, with

267 comments on its ecology in the estuary. *Chesapeake Science*, **3**, 173–205.
 268 Marliave, J.B. (1981) Spawn and larvae of the Pacific sandfish, *Trichodon trichodon*. *Fishery*
 269 *Bulletin*, **78**, 959–964.
 270 Marshall, N. (1946) Observations on the comparative ecology and life history of two sea
 271 robins, *Prionotus carolinus* and *Prionotus evolans strigatus*. *Copeia*, **1946**, 118–144.
 272 Marteinsdottir, G. & Able, K.W. (1988) Geographic variation in egg size among populations
 273 of the mummichog, *Fundulus heteroclitus* (Pisces: Fundulidae). *Copeia*, **1988**, 471–478.
 274 Mayo, C.A. (1973) Rearing, growth, and development of the eggs and larvae of seven scom-
 275 brid fishes from the Straits of Florida.
 276 Mehault, S., Domnguez-Petit, R., Cervio, S. & Saborido-Rey, F. (2010) Variability in total egg
 277 production and implications for management of the southern stock of European hake. *Fish-*
 278 *eries Research*, **104**, 111–122.
 279 Melnichuk, G.L. (1941) Eggs and larvae of the bonito (*Pelamys sarda* C. V.) in the north-
 280 western part of the Black Sea. *Comptes Rendus (Doklady) de l'Acadmie des Sciences de*
 281 *l'URSS*, **30**, 561–562.
 282 Mi, P.T., Kornienko, E.S. & Drozdov, A.L. (1998) Embryonic and larval development of the
 283 seahorse *Hippocampus kuda*. *Russian Journal of Marine Biology*, **24**, 325–329.
 284 Miller, T.J., Herra, T. & Leggett, W.C. (1995) An individual-based analysis of the variability
 285 of eggs and their newly hatched larvae of Atlantic cod (*Gadus morhua*) on the Scotian Shelf.
 286 *Canadian Journal of Fisheries and Aquatic Sciences*, **52**, 1083–1093.
 287 Mito, S. (1957) Egg development and batched larvae of *Girella punctata* GRAY (Girellidae,
 288 Teleostei). *Japanese Journal of Ichthyology*, **6**, 105–108.
 289 Mito, S. (1960) Egg development and hatched larvae of the common dolphin-fish, *Coryphi-*
 290 *aena hippurus* Linn. *Bulletin of the Japanese Society of Scientific Fisheries*, **26**, 223–226.
 291 Mori, K., Ueyanagi & Nishikawa, Y. (1971) The development of artificially fertilized and
 292 reared larvae of the yellowfin tuna, *Thunnus albacares*. *Bulletin Far Seas Fisheries Research*

293 *Laboratory*, **5**, 219–232.

294 Morse, W.W. (1981) Reproduction of the summer flounder, *Paralichthys dentatus* (L.). *Jour-*
 295 *nal of Fish Biology*, **19**, 189–203.

296 Nagelkerken, W.P. (1979) *Biology of the Graysby*, *Epinephelus cruentatus*, of the coral reef of
 297 *Curaao*, The Hague.

298 Oliveira, M.R., Morais, A.L.S., Silva, A.M., Lima, J.T.A.X., Carvalho, M.M., Chellappa, N.T.
 299 & Chellappa, S. (2015) Estratgias reprodutivas de sete especies de peixes das guas costeiras do
 300 Rio Grande Do Norte, Brasil. *HOLOS*, **6**, 107–122.

301 Pearcy, W.G. (1962) Egg masses and early developmental stages of the scorpaenid fish, *Se-*
 302 *bastolobus*. *Journal of the Fisheries Research Board of Canada*, **19**, 1169–1173.

303 Pearson, J.C. (1938) The life history of the striped bass, or rockfish, *Roccus saxatilis* (Wal-
 304 baum). *Fishery Bulletin*, **49**, 825–851.

305 Petersen, C.W. (1991) Sex allocation in hermaphroditic sea basses. *The American Naturalist*,
 306 **138**, 650–667.

307 Petterson, C.L. (1961) Fecundity of the anchoveta (*cetengraulis mysticetus*) in the Gulf of
 308 Panama. *Bulletin of the Inter-American tropical tuna commission*, **VI**, 55–68.

309 Popper, D., Gordin, H. & Kissil, G.W. (1973) Fertilization and hatching of rabbitfish *Siganus*
 310 *rivulatus*. *Aquaculture*, **2**, 37–44.

311 Powell, A.B. & Gordy, H.R. (1980) Egg and larval development of the spot, *Leiostomus xan-*
 312 *thurus* (Sciaenidae). *Fishery Bulletin*, **78**, 701–714.

313 Randall, J.E. & Randall, H.A. (1963) The spawning and early development of the Atlantic
 314 parrot fish, *Sparisoma rubripinne*, with notes on other scarid and labrid fishes. *Zoologica*, **48**,
 315 49–60.

316 Raventos, N. & Planes, S. (2008) Maternal size effects on early life traits of the temperate fish
 317 *Symphodus roissali*. *Aquatic Biology*, **4**, 1–6.

318 Regan, C.T. (1916) Larval and post-larval fishes. *Zoology*, **1**, 125–156.

319 Richards, S.W. (1959) Pelagic fish eggs and larvae of Long Island Sound. *Bulletin of the*

- 320 *Bingham Oceanographic Collection - Yale University*, **17**, 95–124.
- 321 Rivas, L.R. (1954) A preliminary report on the spawning of the western North Atlantic bluefin
 322 tuna (*Thunnus thynnus*) in the straits of Florida. *Bulletin of Marine Science of the Gulf and*
 323 *Caribbean*, **4**, 302–322.
- 324 Robertson, D.R. (1996) Egg size in relation to fertilization dynamics in free-spawning tropical
 325 reef fishes. *Oecologia*, **108**, 95–104.
- 326 Robertson, D.R. & Warner, R.R. (1978) Sexual patterns in the labroid fishes of the Western
 327 Caribbean, II: The parrotfishes (Scaridae). *Smithsonian Contributions to Zoology*, **255**, 1–26.
- 328 Ross, J.L. & Merriner, J.V. (1983) Reproductive biology of the blueline tilefish, *Caulolatilus*
 329 *microps*, off North Carolina and South Carolina. *Fishery Bulletin*, **81**, 553–568.
- 330 Ross, S.W. (1984) Reproduction of the banded drum, *Larimus fasciatus*, in North Carolina.
 331 *Fishery Bulletin*, **82**, 227–235.
- 332 Ruck, J.G. (1973) Development of *Tripterygion capito* and *T. robustum* (Pisces: Tripterygi-
 333 idae). *Zoology Publications from Victoria University of Wellington*, **63**, 1–7.
- 334 Ruck, J.G. (1980) Early development of *Forsterygion varium*, *Gilloblennius decemdigitatus*,
 335 and *G. tripennis* (Pisces: Tripterygiidae). *New Zealand Journal of Marine and Freshwater*
 336 *Research*, **14**, 313–326.
- 337 Ryder, J.A. (1881) Development of the Spanish mackerel (*Cybius maculatum*). *Bulletin of the*
 338 *United States Fish Commission*, **1**, 135–172.
- 339 Saksena, V.P. & Richards, W.J. (1975) Description of eggs and larvae of laboratory-reared
 340 white grunt, *Haemulon plumieri* (Lacpde) (Pisces, Pomadasyidae). *Bulletin of Marine Sci-*
 341 *ence*, **24**, 523–536.
- 342 Sanzo, L. (1933) Uova e primi stadi larvali di alalonga (*Orcynus germa* Ltkn.). *Regio comi-*
 343 *tato talassografico italiano*, **198**, 3–9.
- 344 Snchez, R.P., de Ciechowski, J.D. & Acha, E.M. (1986) Estudios sobre reproducin y fecun-
 345 didad de la polaca (*Micromesistius australis* Norma 1937) en el Mar Argentino. *Revista de*

346 *Investigacin y Desarrollo Pesquero*, **6**, 21–43.

347 Schaefer, M.B. & Marr, J.C. (1948) Spawning of yellowfin tuna (*Neothunnus macropterus*)
 348 and skipjack (*Katsuwonus pelamis*) in the Pacific Ocean off Central America, with descrip-
 349 tions of juveniles. *Fishery Bulletin*, **51**, 187–196.

350 Scofield, E.C. (1932) Early life history of the California sardine (*Sardina caerulea*), with spe-
 351 cial reference to distribution of eggs and larvae. *Fish Bulletin*, **41**, 30–44.

352 Senta, T. (1965) The bouyancy of sand-eel eggs and their distribution in the Seto inland sea.
 353 *Bulletin of the Japanese Society of Scientific Fisheries*, **31**, 511–516.

354 Sette, O.E. (1943) Biology of the Atlantic mackerel (*Scomber scombrus*) of North America.
 355 Part I: Early life history, including the growth, drift, and mortality of the egg and larval popu-
 356 lations. *Fishery Bulletin*, **50**, 149–237.

357 Shao, K.-T., Chen, K.-C. & Wu, J.-H. (2002) Identification of marine fish eggs in Taiwan
 358 using light microscopy, scanning electric microscopy and mtDNA sequencing. *Marine and*
 359 *Freshwater Research*, **53**, 355–365.

360 Shaw, E.S. (1955) The embryology of the sergeant major, *Abudefduf saxatilis*. *Copeia*, **1955**,
 361 85–89.

362 Shepherd, G.R. & Grimes, C.B. (1984) Reproduction of weakfish, *Cynoscion regalis*, in the
 363 New York Bight and evidence for geographically specific life history characteristics. *Fishery*
 364 *Bulletin*, **82**, 501–511.

365 Silva, E.I.L. & De Silva, S.S. (1981) Aspects of the biology of grey mullet, *Mugil cephalus* L.,
 366 adult populations of a coastal lagoon in Sri Lanka. *Journal of Fish Biology*, **19**, 1–10.

367 Simpson, J.G. (1959) Identification of the egg, early life history and spawning areas of the
 368 anchoveta, *Cetengraulis mysticetus* (Gnther), in the Gulf of Panama. *Bulletin of the Inter-*
 369 *American Tropical Tuna Commission*, **3**, 441–580.

370 Smith, L., Atz, E.H. & Tyler, J.C. (1971) Aspects of oral brooding in the cardinalfish
 371 *Cheilodipterus affinis* Poey (Apogonidae). *American Museum Novitates*, **2456**, 1–11.

372 Springer, V.G. & McErlean, A.J. (1961) Spawning seasons and growth of the code goby, *Go-*

373 *biosoma robustum* (Pisces: Gobiidae), in the Tampa Bay area. *Tulane Studies in Zoology*, **9**,
374 87–98.

375 Stein, R. (1973) Description of laboratory-reared larvae of *Oligocottus maculosus* Girard
376 (Pisces: Cottidae). *Copeia*, **1973**, 373–377.

377 Stepien, C.A. (1986) Life history and larval development of the giant kelpfish, *Heterostichus*
378 *rostratus* Girard, 1854. *Fishery Bulletin*, **84**, 809–826.

379 Stevens, E.G. & Moser, H.G. (1982) Observations on the early life history of the mussel
380 blenny, *Hypsoblennius jenkinsi*, and the bay blenny, *Hypsoblennius gentilis*, from specimens
381 reared in the laboratory. *CalCOFI Reports*, **23**, 269–275.

382 Studies on the Atlantic American pipefishes with descriptions of new species (1965) Califor-
383 nia Academy of Sciences, San Francisco, CA, USA.

384 Sudarsan, D. (1966) Eggs and larvae of a hemirhamphid fish from Mandapam. *Journal of the*
385 *Marine Biological Association of India*, **8**, 342–346.

386 Suzuki, K., Tanaka, Y. & Hioki, S. (1980) Spawning behavior, eggs, and larvae of the butter-
387 flyfish, *Chaetodon nippon*, in an aquarium. *Japanese Journal of Ichthyology*, **26**, 334–341.

388 Takita, T. (1983) Embryonic and larval development of the callionymid fish, *Callionymus cal-*
389 *liste*. *Japanese Journal of Ichthyology*, **29**, 441–445.

390 Tanaka, Y. & Suzuki, K. (1991) Spawning, eggs and larvae of the hawkfish, *Cirrhitichthys*
391 *aureus*, in an aquarium. *Japanese Journal of Ichthyology*, **38**, 283–288.

392 Tanasichuk, R.W. & Ware, D.M. (1987) Influence of interannual variations in winter sea tem-
393 perature on fecundity and egg size in Pacific herring (*Clupea harengus pallasii*). *Canadian*
394 *Journal of Fisheries and Aquatic Sciences*, **44**, 1485–1495.

395 Tavalga, W.N. (1950) Development of the gobiid fish, *Bathygobius soporator*. *Journal of*
396 *Morphology*, **87**, 467–492.

397 Theilacker, G.H. (1981) Effect of feeding history and egg size on the morphology of jack
398 mackerel, *Trachurus symmetricus*, larvae. *Rapports et procs-verbaux des runions Comission*

399 *Internationale pour L'Exploration Scientifique de la Mer*, **178**, 432–440.

400 Tojeira, I., Faria, A.M., Henriques, S., Faria, C. & Goncalves, E.J. (2012) Early development
 401 and larval behaviour of two clingfishes, *Lepadogaster purpurea* and *Lepadogaster lepadogaster* (Pisces: Gobiesocidae). *Environmental Biology of Fishes*, **93**, 449–459.

403 Tomasini, J.A., Collart, D. & Quignard, J.P. (1996) Female reproductive biology of the sand
 404 smelt in brackish lagoons of southern France. *Journal of Fish Biology*, **49**, 594–612.

405 Tregonning, R.J., Gaughan, D.J. & Fletcher, W.J. (1996) Description of the eggs and yolk-
 406 sac larvae of whitebait *Hyperlophus vittatus* (Teleostei: Clupeidae). *Records of the Western*
 407 *Australian Museum*, **18**, 129–134.

408 Tsukahara, H. (1961) Biology of the cutlassfish, *Trichiurus lepturus* Linnaeus. *Records of*
 409 *Oceanographic Works in Japan*, **5**, 117–121.

410 Valenti, R.J. (1972) The embryology of the neon goby, *Gobiosoma oceanops*. *Copeia*, **1972**,
 411 477–482.

412 Veerappanm, N., Ramanathan, M. & Ramaiyan, V. (1997) Maturation and spawning biology
 413 of *Amblygaster sirm* from parangipettai, southeast coast of India. *Journal of the Marine Bio-*
 414 *logical Association of India*, **39**, 89–96.

415 Vieira, A.R.S. (2007) Biologia do peixe-espada preto, *Aphanopus carbo* Lowe, 1839, em guas
 416 portuguesas.

417 Villegas-Ros, D., Martnez, A., Palmero, A.M. & Azevedo, J.M.N. (2009) Early development
 418 stages of the red blenny, *Parablennius ruber* (Teleostei: Blenniidae). *Journal of the Marine*
 419 *Biological Association of the United Kingdom*, **89**, 605–608.

420 Waite, E.R. (1916) *Fishes*, R. E. E. Rogers, Government Print, Adelaide, SA, Australia.

421 Walsh, W.A. & Lund, W.A.J. (1983) Early development of the longhorn sculpin, *Myoxo-*
 422 *cephalus octodecemspinosus*. *Fishery Bulletin*, **81**, 781–788.

423 Warfel, H.E. & Merriman, D. (1944) The spawning habits, eggs and larvae of the sea raven,
 424 *Hemitripterus americanus*, in southern New England. *Copeia*, **1944**, 197–205.

425 Warner, R.R. (1982) Mating systems, sex change and sexual demography in the rainbow

426 wrasse, *Thalassoma lucasanum*. *Copeia*, **1982**, 653–661.

427 Warner, R.R. & Robertson, D.R. (1978) Sexual patterns in the labroid fishes of the Western
 428 Caribbean, I: The wrasses (Labridae). *Smithsonian Contributions to Zoology*, **254**, 1–27.

429 Wassef, E.A. & Hady, H.A.A. (1997) Breeding biology of rabbitfish *Siganus canaliculatus*
 430 (Siganidae) in mid Arabian Gulf. *Fisheries Research*, **33**, 159–166.

431 Watanabe, T. (1970) Morphology and ecology of early stages of life in Japanese common
 432 mackerel, *Scomber japonicus* Houttuyn, with special reference to fluctuation of population.
 433 *Bulletin of Tokai Regional Fisheries Laboratory*, **62**, 1–22.

434 Watson, W. (1982) Development of eggs and larvae of the white croaker, *Genyonemus linea-*
 435 *tus* Ayres (Pisces: Sciaenidae), off the southern California coast. *Fishery Bulletin*, **80**, 403–
 436 417.

437 Weisel, G.F.J. (1947) Breeding behavior and early development of the mudsucker, a gobiid
 438 fish of California. *Copeia*, **1947**, 77–85.

439 Wheatland, S.B. (1956) Oceanography of Long Island Sound, 1952–1954. VII. Pelagic fish
 440 and larvae. *Bulletin of the Bingham Oceanographic Collection - Yale University*, **15**, 234–314.

441 White, H.C. (1939) The nesting and embryo of *Zoarcetes anguillaris*. *Journal of the Fisheries*
 442 *Research Board of Canada*, **4b**, 337–338.

443 White, W.S. (1977) Taxonomic composition, abundance, distribution and seasonality of fish
 444 eggs and larvae in Newport Bay, California.

445 Wiley, J.W. (1973) Life history of the western North American goby, *Coryphopterus nicholsii*
 446 (Bean). *Transactions of the San Diego Society of Natural History*, **17**, 187–208.

447 Williams, G.C., Richards, S.W. & Farnworth, E.G. (1964) Eggs of *Ammodytes hexapterus*
 448 from Long Island, New York. *Copeia*, **1964**, 242–243.

449 Wright, P.J. (1992) Ovarian development, spawning frequency and batch fecundity in *Encra-*
 450 *sicholina heteroloba* (Ruppell, 1858). *Journal of Fish Biology*, **40**, 833–844.