

Ronald E. Thresher

Honorary Postretirement Fellow (CSIRO Oceans and Atmosphere Flagship) and
Principal Scientist (SF Tech)

GPO Box 1538, Hobart 7001 Tasmania Australia; Ron.Thresher@csiro.au;
Telephone – 61-3-62325378; Mobile – 61- 0409391496; Fax – 61-3-62325485

Education

Ph.D. (Biological Oceanography) - May 1977, Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Florida.

M.S. (Biological Oceanography) - December 1974, Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Florida.

B.S. (Zoology) - June 1970, University of Rhode Island, Kingston, Rhode Island

Recent relevant experience and positions held

Consultant, 2014-2015, “Risk Assessment for Control of Mosquito Vectors with Engineered Nucleases Part 1: Sterile Male Construct”; CSIRO contract to the U.S. Foundation for the National Institutes of Health

Leader, Daughterless Carp Project, 2003-2015, International collaborative program to develop recombinant and chromosomal options for the control of invasive vertebrate pests

Foundation Program Manager, Freshwater Strategies and Products, Invasive Animal CRC, 2004-2005

National Coordinator, “Sterile Ferals” CSIRO Chief Executive Special Project, 2000-2003, multi-divisional collaborative CSIRO project to develop recombinant options that prevent aquaculture species from escaping to form destructive feral populations

Head, CSIRO Centre for Research on Introduced Marine Pests, 1994-2001, 25+ staff centre spanning three research programs (port surveys, pest management and pest impacts) and industry liaison, with extensive interactions and responsibilities to shipping and port industries, and national, State and Commonwealth management agencies.

Senior Research Scientist - Senior Principal Research Scientist, CSIRO Division of Fisheries/Marine and Atmospheric Research, Hobart, Tasmania. 1983- 2013.

Referred Publications (Key relevant publications *)

Myrberg, A.A., Jr. & R.E. Thresher. 1974. Interspecific aggression and its relevance to the concept of territoriality in reef fishes. American Zoologist, 14: 81-96.

Thresher, R.E. 1976. Field experiments on the problem of species recognition by the threespot damselfish, *Eupomacentrus planifrons* (Pisces, Pomacentridae). Animal Behaviour, 24: 562-569.

Thresher, R.E. 1976. Field analysis of the territoriality of the threespot damselfish, *Eupomacentrus planifrons* (Pomacentridae). Copeia, 1976: 266-276.

Thresher, R.E. 1977. Ecological determinants of social organization in reef fishes. Proceedings of the Third International Coral Reef Symposium, 1: 551-558.

Thresher, R.E. 1977. Eye ornamentation of Caribbean reef fishes. Zeitschrift fur Tierpsychologie, 43: 152-158.

Thresher, R.E. 1977. Pseudo-cleaning behavior of Florida reef fishes. Copeia, 1977: 768-769.

Thresher, R.E. 1978. Polymorphism, mimicry and the evolution of the hamlets (*Hypoplectrus*, Serranidae). Bulletin of Marine Science, 28: 345-353.

Thresher, R.E. & A.M. Gronell. 1978. Sub-cutaneous tagging of small reef fishes. Copeia, 1978: 358-359.

Thresher, R.E. 1978. Territoriality and aggression in the threespot damselfish, *Eupomacentrus planifrons*: an experimental study of causation. Zeitschrift fur Tierspsychologie, 46: 401-434.

Thresher, R.E. 1979. The role of individual recognition in the territorial behaviour of the threespot damselfish, *Eupomacentrus planifrons*. Marine Behaviour and Physiology, 6: 83-94.

Thresher, R.E. 1979. Social behavior and ecology of two sympatric wrasses (Labridae: *Halichoeres* spp.) off the coast of Florida. Marine Biology, 53: 161-172.

Thresher, R.E. 1979. Possible mucophagy by juvenile *Holacanthus tricolor* (Pisces: Pomacanthidae). Copeia, 1979: 160-161.

Thresher, R.E. 1980. Clustering: non-agonistic group contact in territorial reef fishes, with special reference to the Sea of Cortez damselfish, *Eupomacentrus rectifraenum*. Bulletin of Marine Science, 30: 252-260.

Thresher, R.E. 1982. Interoceanic differences in the reproduction of coral reef fishes. Science, 218: 70-72.

Thresher, R.E. 1982. Courtship and spawning in the emperor angelfish, *Pomacanthus imperator*, with comments on reproduction by other pomacanthid fishes. Marine Biology, 70: 149-156.

Thresher, R.E. 1983. Environmental correlates of the distribution of planktivorous reef fishes in the One Tree Island lagoon. Marine Ecology Progress Series, 10: 137-145.

Thresher, R.E. & J.T. Moyer. 1983. Male success, courtship complexity and patterns of sexual selection in three congeneric species of sexually monochromatic and dichromatic damselfishes (Pisces: Pomacentridae). Animal Behaviour, 31: 113-127.

- Moyer, J.T., R.E. Thresher & P.L. Colin. 1983. Courtship, spawning and inferred social organizations of American angelfishes (genera *Centropyge*, *Holacanthus* and *Pomacanthus*). Environmental Biology of Fishes, 9: 25-39.
- Thresher, R.E. 1983. Habitat effects on reproductive success of the coral reef fish *Acanthochromis polyacanthus*. Ecology, 64: 1184-1199.
- Thresher, R.E. 1985. Spatial distribution, abundance and variation in reproductive success in the reef fish *Acanthochromis polyacanthus*. Ecology, 66: 1139-1150.
- Thresher, R.E. & E.B. Brothers. 1985. Reproductive ecology and bio-geography on Indo-west Pacific angelfishes (Pisces: Pomacanthidae). Evolution, 39: 878-887.
- Thresher, R.E. 1985. Parental brood harassment and early brood abandonment in the coral reef fish, *Acanthochromis polyacanthus*. Animal Behaviour, 33: 897-907.
- Brothers, E.B. & R.E. Thresher. 1985. Larval duration, dispersal and the biogeography of Indo-Pacific coral reef fishes. Pp. 53-69 In: Reaka, M.L. (ed.) The Ecology of Coral Reefs. NOAA Symposium Series on Undersea Research, Vol. 3, NOAA Undersea Research Program, Rockville, Maryland.
- Sale, P.F., G.P. Jones, J.H. Choat, J.M. Leis, R.E. Thresher & D. McB. Williams. 1985. Current priorities in ecology of coral reef fishes. Search, 16: 270-274.
- Thresher, R.E. 1985. Interoceanic differences in the larval ecology of coral reef fishes: Australia versus the Western Atlantic. Proceedings of the Ecological Society of Australia, 14: 1-6.
- Thresher, R.E. & J.S. Gunn. 1986. Comparative analysis of visual census techniques for highly mobile, reef-associated piscivores (Carangidae). Environmental Biology of Fishes, 17: 93-116.
- Thresher, R.E. & P.L. Colin. 1986. Diversity, abundance and trophic structure of fishes of the deep (30-300 m) fore reef at Enewetak Atoll, Marshall Islands. Bulletin of Marine Science, 38: 253-272.
- Thresher, R.E., K.S. Sainsbury, J.S. Gunn & A.W. Whitelaw. 1986. Life history strategies and recent changes in population structure in the lizardfish genus, *Saurida*, on the Australian Northwest Shelf. Copeia, 1976: 876-885.
- Thresher, R.E. 1988. Latitudinal effects on eggs of tropical and subtropical North Atlantic shore fishes. Environmental Biology of Fishes, 21: 17-25.
- Gunn, G.S., B. Bruce, D. Furlani, R.E. Thresher & S.J. Blaber. 1989. Timing and location of spawning by the Blue Grenadier, *Macruronus novaezealandiae* (Teleostei, Macrouridae), in Australian coastal waters. Australian Journal of Marine and Freshwater Research, 40: 97-112.
- Thresher, R.E., P.L. Colin & L. Bell. 1989. Planktonic duration, distribution and population structure of western and central Pacific damselfishes (Pomacentridae). Copeia, 1989: 420-434.
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- Thresher, R.E. & E.B. Brothers. 1989. Evidence for interoceanic and regional differences in the early life history of coral reef fishes. Marine Ecology Progress Series, 57: 187-205.
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- Gunn, J.S. & R.E. Thresher. 1991. Viviparity and the reproductive ecology of clinid fishes (Clinidae) from temperate Australian waters. Environmental Biology of Fishes, 31: 323-344.
- Gunn, J.S. et al., 1992. Wavelength dispersive electron probe microanalysis of calcified tissues in fishes - analysis of techniques appropriate to studies of age and stock discrimination. Journal of Experimental Marine Biology and Ecology, 158: 1-36.
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Thresher, R.E. 2002. Solar correlates of southern hemisphere climate variability. International Journal of Climatology 22:901-915.

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*(Thresher, R.E., 2007. Genetic options for the control of invasive vertebrate pests: prospects and constraints. Pp. 318-331. In: Witmer, G.W., W.C. Pitt and K. Fagerstone (eds). Managing Vertebrate Invasive Species: Proceedings of an International Symposium. USDA APHIS Wildlife Services, Fort Collins, Co.

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*Thresher, R.E. 2008. Autocidal technology for the control of invasive fish. Fisheries 33:114-121.

Thresher, R.E. 2009. Environmental and compositional correlates of growth rate in deep-water bamboo corals (Gorgonacea; Isididae). Marine Ecology Progress Series, 397: 187-196.

Sherwood, O.A., R. E. Thresher, S. J. Fallon, D. M. Davies and T. W. Trull. 2009. Tasmanian isidids: isotopic evidence for benthic-pelagic coupling and centennial constancy of oceanographic conditions. Marine Ecology Progress Series, 397: 209-218.

*Bax, N.J. and R. E. Thresher. 2009. Ecological, behavioral and genetic factors influencing the recombinant control of invasive pests. Ecological Applications 19:873-888.

*Thresher, R., P. Grewe, S. Whyard, J. Patil, C. M. Templeton, A. Chaimongol, C. M. Hardy, L. A. Hinds and R. Dunham. 2009. Development of repressible sterility to prevent the establishment of feral populations of exotic and genetically modified animals. Aquaculture 290:104-109.

Thresher, R.E., C. M. MacRae, N. C. Wilson and S. Fallon. 2009. Feasibility of age determination of deep-water Bamboo Corals (Gorgonacea; Isididae) from annual cycles in skeletal composition. Deep-Sea Research I 56: 442-449.

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Neuheimer, A.B., R.E. Thresher, J.M. Lyle and J.M. Semmens. 2011. Tolerance limit for fish growth exceeded by warming waters. Nature Climate Change, 1:110-113.

Morrongiello, J.R., R.E. Thresher, and D.C. Smith. 2012. Aquatic biochronologies and climate change. Nature Climate Change, 2: 849-857.

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Books

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Patents

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