

## 1998 REFEREED PUBLICATIONS

1. Bates, W.R. 1998. Evolutionary implications of FGF and distal-less expressions during proximal-distal axis formation in the ampulla of a direct-developing ascidian, "*Mogula pacifica*". *Biol. Bull.* 194:241-243.
2. Bates, W.R.; Nishida, H. 1998. Developmental roles of nuclear complex factors during oocyte maturation in the ascidians "*Halocynthia roretzi*" and "*Boltenia villosa*". *Zool. Sci.* 15:69-76.
3. Behrens Yamada, S.; Boulding, E.G. 1998. Claw morphology, prey size selection, and foraging efficiency in generalist and specialist shell-breaking crabs. *J. Exp. Mar. Biol. Ecol.* 220:191-211.
4. Boulding, E.G.; Harper, F. 1998. Increasing precision in randomised field experiments: barnacle microtopography as a predictor of "*Littornia*" abundance. *Hydrobiologia* 378:105-114.
5. Brock, R.E.; Smith, L.D. 1998. Recovery of claw size and function following autotomy in "*Cancer productus*" (Decapoda: Brachyura). *Biol. Bull.* 194:53-62.
6. Burger, A.E.; Etzkorn, J.E.; Gisborne, B.; Palm, R. 1998. Influx of brown pelicans off southwest Vancouver Island during the 1997 El Nino. *Pacific Seabird* (in press)
7. Carefoot, T.H.; Taylor, B.E.; Donovan, D.A. 1998. Seasonality in digestive-gland size and metabolism in relation to reproduction in "*Haliotis kamtschatkana*". *J. Shellfish Res.* 17:713-716.
8. Carefoot, T.H.; Taylor, B.E.; Brett, K. 1998. A day in the life of an isopod: 24-hour time and energy allocations in the semiterrestrial isopod, "*Ligia pallasii*". *Isr. J. Zool.* 44:463-471.
9. Carefoot, T.H. 1998. Toward the new (isopod) millennium. *Isr. J. Zool.* 44:253-261.
10. Donovan, D.A.; Carefoot, T.H. 1998. Effect of activity on energy allocation in the northern abalone, "*Haliotis kamtschatkana*" (Jonas) *J. Shellfish Res.* 17:729-736.
11. Harper, J.T.; Saunders, G.W. 1998. A molecular systematic investigation of the Acrochaetiales (Florideophycidae, Rhodophyta) and related taxa based on nuclear small-subunit ribosomal DNA sequence data. *Eur. J. Phycol.* 33:221-229.

12. Hogstrand, C.; Wood, C.M. 1998. Towards a better understanding of the bioavailability, physiology, and toxicology of silver in fish: implications for water quality criteria. *Environ. Toxicol. Chem.* 17:547-561.
13. Kennedy, C.J. 1998. The toxicokinetics of polycyclic aromatic hydrocarbons in fish: a review. *Reviews in Toxicol.* (in press)
14. Klingenberg, C.P.; McIntyre, G.S.; Zaklan, S.D. 1998. Left-right asymmetry of fly wings and the evolution of body axes. *Proc. R. Soc. Lond. B*, 265:1255-1259.
15. Kruse, M., Leys, S.P., Muller, I.M., Muller, W.E.G. 1998. Phylogenetic position of the Hexactinellida within the phylum porifera based on amino acid sequence of the protein kinase C from *Rhabdocalyptus dawsoni*. *Journal of Molecular Evolution* 46:721-728.
16. Kyle, C.J.; Boulding, E.G. 1998. Molecular genetic evidence for parallel evolution in a marine gastropod, "*Littorina subrotundata*". *Proc. R. Soc. Lond. B.* 265:303-308.
17. Levitan, D.R. 1998. Does Bateman's principle apply to broadcast-spawning organisms? Egg traits influence in situ fertilization rates among congeneric sea urchins. *Evolution* 52:1043-1056.
18. Levitan, D.R.; Sewell, M.A. 1998. Male abundance and fertilization success in free-spawning marine invertebrates: Review of the evidence and fisheries implications. In: *Proceedings of the North Pacific Symposium on Invertebrate Stock Assessment and Management*, edited by G.S. Jamieson and A. Campbell (Canadian Special Publication in Fisheries and Aquatic Science 125), pp. 159-164.
19. Leys, S.P.; Lauzon, N.R.J. 1998. Hexactinellid sponge ecology: growth rates and seasonality in deep water sponges. *J. Exp. Mar. Biol. Ecol.* 230:111-129.
20. Markell, R.; DeWreede, R.E. 1998. Mechanisms underlying the effect of the chiton "*Katharina tunicata*" (Wood) on the kelp "*Hedophyllum sessile*" (C. Agardh) Setchell: size escape and indirect effects. *Mar. Ecol. Prog. Ser.* 166:151-161.
21. McGaw, I.J.; McMahon, B.R. 1998. Endogenous rhythms of haemolymph flow and cardiac performance in the crab "*Cancer magister*". *J. Exp. Mar. Biol. Ecol.* 224:127-142.

22. Müller, W.E.G, Kruse, M., Koziol, C., and S.P. Leys, 1998. Evolution of early Metazoa: phylogenetic status of the Hexactinellida within the phylum of Porifera [sponges]. *Progr. Molec. Subcell. Biol.* 21:141-156.
23. Paert, P.; Wright, P.A.; Wood, C.M. 1998. Urea and water permeability in dogfish gills ("Squalus acanthias"). *Comp. Biochem. Physiol.* 119A:117-123.
24. Penney, B.K. 1998. The context of molecular data. *Science* 282:1992.
25. Powlik, J.J. 1998. A comparison of methods for sampling splashpool copepoda. *Sarsia* 83:219-223.
26. Powlik, J.J. 1998. Seasonal abundance and population flux of "Tigriopus californicus" (Copepoda: Harpacticoida) in Barkley Sound, British Columbia. *J. Mar. Biol. Ass. U.K.* 78:467-481.
27. Randall, D.J.; Brauner, C.J. 1998. Interactions between ion and gas transfer in freshwater teleost fish. *Comp. Biochem. Physiol.* 119A:3-8.
28. Sanders, N.; Childress, J.J.; McMahon, B.R. 1998. Oxygen transport by the hemocyanin of the protobranch mollusc "Solemya reidi". *Mar. Biol.* 131:293-299.
29. Scrosati, R.; Dewreede R. E. 1998. The impact of frond crowding on frond bleaching in the clonal intertidal alga "Mazzaella cornucopiae" (Rhodophyta, Gigartinaceae) from British Columbia, Canada. *J. Phycol.* 34:228-232.
30. Scrosati, R. 1998. Population structure and dynamics of the clonal alga "Mazzaella cornucopiae" (Rhodophyta, Gigartinaceae) from Barkley Sound, Pacific coast of Canada. *Bot. Mar.* 41:483-493.
31. Shaw, J.R.; Wood, C.M.; Birge, W.J.; Hogstrand, C. 1998. Toxicity of silver to a marine teleost, the tidepool sculpin ("Oligocottus maculosus"): effects of salinity and ammonia. *Environ. Toxicol. Chem.* 17:594-600.
32. Spafford, J.D.; Spencer, A.N.; Gallin, W.J. 1998. A putative voltage-gated sodium channel alpha subunit (PpSCN1) from the hydrozoan jellyfish, "Polyorchis penicillatus": structural comparisons and evolutionary considerations. *Biochem. Biophys. Res. Commun.* 244:772-780.
33. Tanasichuk, R.W. 1998. Interannual variations in the population biology and productivity of "Euphausia pacifica" in Barkley Sound, Canada, with special reference to the 1992 and 1993 warm ocean years. *Mar. Ecol. Prog. Ser.* 173:163-180.

34. Tanasichuk, R.W. 1998. Interannual variations in the population biology and productivity of "*Thysanoessa spinifera*" in Barkley Sound, Canada, with special reference to the 1992 and 1993 warm ocean years. *Mar. Ecol. Prog. Ser.* 173:181-195.

## **NONREFEREED PUBLICATIONS AND REPORTS**

1. Ackerman, J.D. 1998. The effect of turbulence on the functioning of aquatic organisms. In: *Engineering Mechanics: A Force for the 21st Century*. Proceedings of the 12th Engineering Mechanics Conference, La Jolla, May 1998. Reston, VA: ASCE, pp.1784-1787.
2. Brauner, C.J.; Randall, D.J. 1998. The linkage between oxygen and carbon dioxide transport. In: *Fish Physiology Vol. 17*, edited by S.F. Perry and B. Tufts. Academic Press (in press).
3. Burger, A.E.; Watanuki, Y.; Irons, D.B. 1998. Behaviour of birds at sea: a review of the La Grangian approach to seabird foraging ecology. In: *Seabirds in a Changing Ocean: Advances in Seabird Science*, edited by D.C. Duffy and J. Parrish (in press)
4. Levitan, D.R. 1998. Sperm limitation, sperm competition and sexual selection in external fertilizers. In: *Sperm Competition and Sexual Selection*, edited by T. Birkhead and A. Moller. Academic Press, pp. 173-215.
5. Leys, S.P., 1998. Fusion and cytoplasmic streaming are characteristic of at least two hexactinellid sponges. An examination of live tissue cultures from *Aphrocallistes vastus*. In: *Sponge Sciences. Proc. International Conference on Sponge Science held at Lake Biwa Research Institute, Japan, March 1996*, pp. 215-226. Springer-Verlag, Tokyo

## **DISSERTATIONS AND THESES**

1. Donovan, D.A. 1998. Energetics of activity in the abalone, "*Haliotis kamtschatkana*". Ph.D. thesis, University of British Columbia, Vancouver, BC.
2. Kusumo, H.T. 1998. A parallel assessment of morphological and genetic diversity in the kelp "*Alaria marginata*". Ph.D. thesis, Simon Fraser University, Burnaby, BC.
3. Spafford, J.D. 1998. The evolution of voltage-gated sodium channels as interpreted from a study of sodium currents and channels from the hydrozoan jellyfish, "*Polyorchis penicillatus*". M.Sc. thesis, University of Alberta, Edmonton, AB.

4. Taylor, B.E. 1998. Studies on the nutrition of the abalone, "Haliotis kamtschatkana". Ph.D. Thesis.
5. Webb, N.A. 1998. Silver in freshwater and seawater fish: toxicity, bioaccumulation, and physiology. M.Sc. thesis, McMaster University, Hamilton, ON.
6. ABSTRACTS
7. Ackerman, J.D. 1998. Physical forcing on the ecophysiology of suspension feeding in Mytilid mussels. Eos Suppl. 79:179.
8. Bishop, C.D.; Bates, W.R.; Brandhorst, B.P. 1998. Cell specific expression of HSP90 and induction of metamorphosis in ascidian larvae. Dev. Biol. 198:381.