

## 2004 REFEREED PUBLICATIONS

1. Ackerman, J.D., Nishizaki, M.T. 2004. The effect of velocity on the suspension feeding and growth of the marine mussels *Mytilus trossulus* and *M. californianus*: implications for competition and niche separation. *Journal of Marine Systems* 49:195-207.
2. Bates, W.R. 2004. Ultraviolet irradiation of eggs and blastomere isolation experiments suggest that gastrulation in the direct developing ascidian, *Molgula pacifica*, requires localized cytoplasmic determinants in the egg and cell signaling beginning at the two-cell stage. *Evolution and Development* 6:180-186.
3. Bates, W.R. 2004. Environmental factors affecting reproduction and development in ascidians and other protochordates. *Canadian Journal of Zoology* 83:51-61.
4. Bates, W.R. 2004. Cellular features of an apoptotic form of programmed cell death during the development of the ascidian, *Boltenia villosa*. *Zoological Science* 21:553-563.
5. Bernatis, J.L., MaGaw, I.J. 2004. Dungeness crabs use behavior to minimize the physiological costs of feeding and digestion in hypoxia. *Integrative and Comparative Biology* 44 (6): 524-524.
6. Burns, K.C. 2004. Patterns in specific leaf area and the structure of a temperate heath community. *Diversity and Distributions* 10:105-112.
7. Burns, K.C. 2004. Scale and macroecological patterns in seed dispersal mutualisms. *Global Ecology and Biogeography* 13:289-293.
8. Burns, K.C. 2004. Relationships between the demography and distribution of two bird-dispersed shrubs in an island archipelago. *Journal of Biogeography* 31:1935-1943.
9. Cody, M.L., Cody, T.W.D. 2004. Morphology and spatial distribution of alien sea-rocket (*Cakile* spp.) on South Australian and Western Canadian beaches. *Australian Journal of Botany* 52:175-183.
10. Curtis, D.L., McGaw, I.J. 2004. Feeding and digestion in low salinity: Behavioural adaptations to avoid physiological multitasking in the dungeness crab *Cancer magister*. *Integrative and Comparative Biology* 44 (6): 686-686.
11. Eaves, A.A. 2004. Potential for paired vestibules in pluteus larvae (Echinodermata, Echinoidea). *Invertebrate Biology* 124:174-184.
12. Elliott, G. R. D. 2004. The contractile apparatus of a juvenile freshwater sponge, *Ephydatia muelleri*. *Integrative and Comparative Biology* 44:549-549.
13. Elliott G.R.D., Macdonald T.A. and S.P. Leys. 2004. Sponge larval phototaxis: a comparative study. *Boll. dei Mus. Inst. Biol., Univ. Genova*. 68:291-300.
14. Fudge, D.S., Gosline, J.M. 2004. Molecular design of the alpha-keratin composite: Insights from a matrix-free model, hagfish slime threads. *Proceedings of the Royal Society of London B* 271:291-299.

15. Gilmour, K.M., Perry, S.F. 2004. Branchial membrane-associated carbonic anhydrase activity maintains CO<sub>2</sub> excretion in severely anemic dogfish. *American Journal of Physiology-Regulatory Integrative and Comparative Physiology* 286: R1138-R1148.
16. Gosselin, L.A. 2004. Localized synchronous spawning of *Mytilus californianus* Conrad in Barkley Sound, British Columbia, Canada. *Journal of Shellfish Research* 23:529-534.
17. Heaven, C., Scrosati, R. 2004. Feeding preference of littorina snails (Gastropoda) for bleached and photosynthetic tissues of the seaweed *Mazzaella parksii* (Rhodophyta). *Hydrobiologia* 513: 239-243.
18. Keppel, E., Scrosati, R. 2004. Chemically mediated avoidance of *Hemigrapsus nudus* (Crustacea) by *Littorina scutulata* (Gastropoda): effects of species coexistence and variable cues. *Animal Behaviour* 68:915-920.
19. Leander, B.S., Keeling, P.J. 2004. Early evolutionary history of dinoflagellates and apicomplexans (Alveolata) as inferred from hsp90 and actin phylogenies. *Journal of Phycology* 40:341-350.
20. Leander, C.A.; Porter, D.; Leander, B.S. 2004. Comparative morphology and molecular phylogeny of aplanochytrids (Labyrinthulomycota). *European Journal of Protistology* 40:341-350. (Highlighted on journal cover)
21. Levitan, D.R. 2004. Density-dependent Sexual Selection in External Fertilizers: Variances in Male and Female Reproductive Success Along the Continuum from Sperm Limitation to Sexual Conflict in the Sea Urchin *Strongylocentrotus franciscanus*. *American Naturalist* 164:298-309.
22. Lewis, R.J., Lanker, M.D. 2004. Branching pattern of gametophytes and tetrasporophytes of *Ceramium codicola* (Ceramiales, Rhodophyta) is related to phase and reproductive structures. *Phycologia* 43:121-125.
23. Leys, S.P., Wilson, K., Holeton, C., Reiswig, H.M., Austin, B., Tunnicliffe, V. 2004. Patterns of glass sponge (Porifera, Hexactinellida) distribution in coastal waters of British Columbia, Canada. *Marine Ecology Progress Series* 283:133-149.
24. Marchinko, K.B., Nishizaki, M.T., Burns, K.C. 2004. Community-wide character displacement in barnacles: a new perspective for past observations. *Ecology Letters* 7:114-120.
25. McCartney, M.A., Brayer, K., Levitan, D.R. 2004. Polymorphic microsatellite loci from the red urchin, *Strongylocentrotus franciscanus*, with comments on heterozygote deficit. *Molecular Ecology Notes* 4:226-228.
26. McGaw, I.J. 2004. Prioritization or summation of events? Physiological responses of postprandial Dungeness crabs in low salinity. *Integrative and Comparative Biology* 44 (6): 727-727.
27. McGaw, I.J. 2004. Ventilatory and cardiovascular modulation associated with burying behaviour in two sympatric crab species, *Cancer magister*

- and *Cancer productus*. *Journal of Experimental Marine Biology and Ecology* 303:47-63.
28. Milligan, K.L.D., DeWreede, R.E. 2004. Morphological variations do not effectively reduce drag forces at high wave-exposure for the macroalgal species, *Hedophyllum sessile* (Laminariales, Phaeophyta) *Phycologia* 43:236-244.
  29. Nishizaki, M., Ackerman, J.D. 2004. Juvenile-adult associations in sea urchins *Strongylocentrotus franciscanus* and *S. droebachiensis*: Is nutrition involved? *Marine Ecology Progress Series* 268:93-103.
  30. Palmer, A.R. 2004. Symmetry-breaking and the evolution of development. *Science* 306:828-833. [PDF](#)
  31. Palmer, A. R. 2004. Selection for asymmetry. *Science* 306:812-812.
  32. Pelletier, N. 2004. Conspecific injury fluids induce an electrophysiological response in the clonal tunicate *Clavelina huntsmani*. *Marine Biology* 145:1159-1165.
  33. Penney, B.K. 2004. Individual selection and the evolution of chemical defence in nudibranchs: experiments with whole *Cadlina luteomarginata* (Nudibranchia: Doridina). *Journal of Molluscan Studies* 70:399-400.
  34. Rochette, R., Grand T.C. 2004. Mechanisms of species coexistence: a field test of theoretical models using intertidal snails. *Oikos* 105:512-524.
  35. Saunders, G.W.; Chiovitti, A; Kraft, G.T. 2004. Small-subunit rDNA sequences from representatives of selected families of the Gigartinales and Rhodymeniales (Rhodophyta) 3. recognizing the Gigartinales sensu stricto. *Canadian Journal of Botany* 82:43-74.
  36. Scrosati, R. 2004. Synchrony of frond dynamics among patches of the clonal seaweed *Mazzaella parksii* (Rhodophyta) at local spatial scale. *Journal of the Marine Biological Association of the United Kingdom* 84:883-886.
  37. Scrosati, R., Mudge, B. 2004. Effects of elevation, wave exposure, and year on the proportion of gametophytes and tetrasporophytes in *Mazzaella parksii* (Rhodophyta, Gigartinaceae) populations. *Hydrobiologia* 520:199-205.
  38. Scrosati, R. 2004. A discrete-time logistic model of frond dynamics for *Mazzaella parksii* ( Rhodophyta, Gigartinales). *Journal of Applied Phycology* 16:69-72.
  39. Sokolova, I.M., Boulding, E.G. 2004. A neutral DNA marker suggests that parallel physiological adaptations to open shore and salt marsh habitats have evolved more than once within two different species of gastropods. *Marine Biology* 145:133-147.
  40. Sokolova, I.M., Boulding, E.G. 2004. Length polymorphisms in an intron of aminopeptidase N provide a useful nuclear DNA marker for *Littorina* species (Caenogastropoda). *Journal of Molluscan Studies* 70:165-172.
  41. Tierney KB, Farrell AP. 2004. The relationships between fish health, metabolic rate, swimming performance and recovery in return-run sockeye salmon, *Oncorhynchus nerka* (Walbaum). *Journal of Fish Diseases* 27(11): 663-671. [PDF](#).

42. Tierney, K.B. , A.P. Farrell and C.J. Kennedy. 2004. The differential leucocyte landscape of four teleosts: juvenile *Oncorhynchus kisutch* , *Clupea harengus pallasi*, *Culaea inconstans*, *Pimephales promelas*. *Journal of Fish Biology* 65:909-919.
43. Wilson, B., Batty, R.S., Dill, L.M. 2004. Pacific and Atlantic herring produce burst pulse sounds. *Proceedings of the Royal Society of London Series B- Biological Sciences* 271:S95-S97.

### **NONREFEREED PUBLICATIONS AND REPORTS**

1. Ackerman, J.D., C.L. Stevens, and C.L. Hurd (guest editors). 2004. Biophysical Factors Affecting the Growth and Survival of Aquatic Organisms. special issue of the *Journal of Marine Systems* 49(1-4): 16 articles -- 228 pp.
2. Blakeway, D.; Robles, C.D. Fuentes, D. Qiu, H.L. 2004. Spatially extensive, high-resolution images of rocky shore communities. Chapter 7 in "Handbook of Scaling in Aquatic Ecology: Measurement, Analysis and Simulation," edited by P. Strutton and L. Seuront. CRC Press. Pages 109-124
3. Donalson, D.; Desharnais, A.; Robles, C.D.; Nesbit, R. 2004. Spatial dynamics of a benthic community: applying multiple models to a single system. Chapter 27 in "Handbook of Scaling in Aquatic Ecology: Measurement, Analysis and Simulation," edited by P.Strutton and L. Seuront. CRC Press. Pages 429-444.
4. Leys S.P. 2004. Gastrulation in sponges. In *Gastrulation* (ed. C. Stern). Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York. Pp 23-31 .
5. Leys, S.P. 2004. Glass sponges and Sponge Reefs in British Columbia waters. Educational material for the BC Offshore Oil and Gas section of the British Columbia Ministry of Energy and Mines. [www.offshoreoilandgas.gov.bc.ca/reports/educational.htm](http://www.offshoreoilandgas.gov.bc.ca/reports/educational.htm)
6. Leys, S.P. and H.M. Reiswig. 2004. Hexactinellida. In: *Grzimek's Animal Life Encyclopedia* , 2 nd Edition. Volume 2, Lower Metazoans and Deuterostomes, edited by Michael Hutchins, Dennis Thoney, and Neil Schlager. Farmington Hills, MI: Gale Group. Pp. 67-76.
7. Palmer, A.R. 2004. Antisymmetry. In: *Variation* (B. Hallgrimmson & B.K. Hall, eds) Academic Press.

### **DISSERTATIONS AND THESES**

1. McNally, H.P. 2004. Spatial variation in intertidal food web structures, Barkley Sound, British Columbia: comparison using bulk and compound specific isotope analysis. Queen's University, M.Sc. Thesis.