

BIOGRAPHICAL SKETCH

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| NAME Terence P. Barry eRA COMMONS USER NAME | | POSITION TITLE Senior Scientist | |
| EDUCATION/TRAINING | | | |
| INSTITUTION AND LOCATION | DEGREE | YEAR(s) | FIELD OF STUDY |
| University of Wisconsin-Madison | BS | 1977 | Zoology |
| University of Hawaii and Hawaii Institute of Marine Biology | MS | 1989 | Zoology |
| University of Wisconsin-Madison | PhD | 1994 | Endocrinology- Reproductive Physiology |

A. Positions and Honors.

Positions:

1977-1981 U.S. Peace Corps, Secondary School Teacher, Western Samoa,
 1982-1983 Research Intern, Environment and Policy Institute, East-West Center, Honolulu, Hawaii,
 1986-1988 Research Associate, USAID, Iloilo, Philippines,
 1990-2006 Researcher/Scientist, UW Aquaculture Program, Dept. Animal Sciences, UW-Madison,
 2007-present Scientist/Director, Laboratory of Fish Endocrinology and Aquaculture, Dept. Animal Sciences, UW-Madison

Other

1989-1990 Ph.D. student, Biology Department, Boston University, and Mount Desert Island Marine Biological Laboratory, ME
 1996-1999 & 2004-2007 Secretary/Treasurer, Physiology Section, American Fisheries Society
 1996-2007 Co-Founder, Member, Willow Creek Aquaculture, LLC (private fish hatchery)
 2001-2004 Assistant Editor, North American Journal of Aquaculture American Fisheries Society
 2002-present Affiliate Member, U.W. Endocrinology-Reproductive Physiology Training Program
 2006-present Co-Founder, Member, AquaMOST, LLC (company that uses nanotechnologies to improve fish culture)

Honors

1983-1986 Graduate Degree Scholarship, East-West Center, Honolulu, Hawaii
 1988-1989 Fulbright Graduate Research Fellowship, The University of Tokyo, Japan
 1989 Aubrey Gorbman Award, Division of Comparative Endocrinology, American Society of Zoologists (best paper award at annual meeting)
 1989 Presidential University Graduate Fellowship, Boston University
 1989 Endocrine Society Student Fellowship
 1994-2010 Wisconsin/Hilldale Undergraduate/Faculty Research Fellowship, Univ. Wisconsin-Madison

B. Selected publications in peer-reviewed journals (from >50):

1. **Barry TP**, Yang M. Effects of anti-phospholipase A2 on the growth of rainbow trout. North American Journal of Aquaculture. 2008 (in press).
2. Jurgella GF, Marwah A, Malison JA, Peterson R, **Barry TP**. Effects of xenobiotics and steroids on renal and hepatic estrogen metabolism in lake trout. Gen Comp Endocrinol 2006;148:273-281.
3. Yuliana Y, Malison JA, Wentworth B, **Barry TP**. Genistein and other isoflavones found in soybeans inhibit estrogen metabolism in salmonid fish. Aquaculture 2006;254:658-665.

4. Lima LC, Ribeiro LP, Malison JA, **Barry TP**, Held JA. Effects of temperature on performance parameters and the cortisol stress response of surubim *Pseudoplatystoma sp.* J World Aquaculture Society 2006;37:89-95.
5. Roberts S., **Barry TP**, Malison JA, Goetz F. Production of a recombinantly-derived growth hormone antibody and the characterization of growth hormone levels in yellow perch. Aquaculture 2004;232:591-602
6. Jentoft S., Held JA, Malison JA, **Barry TP**. 2002. Ontogeny of the cortisol stress response in yellow perch (*Perca flavescens*). Fish Physiol and Biochem 26:371-378.
7. **Barry TP**, Unwin MJ, Malison JA, Quinn TP. Free and total cortisol levels in semelparous and iteroparous chinook salmon (*Oncorhynchus tshawytscha*). J Fish Biol 2001;59:673-1676
8. Procarione LS, **Barry TP**, Malison JA. Effects of high rearing densities and loading rates on the growth and stress responses of juvenile rainbow trout. North American Journal of Aquaculture 1999;61:91-96
9. **Barry TP**, Riebe J, Parrish JJ, Malison JA. Effects of $17\alpha,20\beta$ -dihydroxy-4-pregnen-3-one on cortisol production by rainbow trout interrenal tissue *in vitro*. Gen Comp Endocrinol 1997;107:172-181.
10. Distefano RJ, **Barry TP**, Malison JA. Correlation of blood parameters with reproductive problems in walleyes in a Missouri impoundment. J Aquatic Animal Health 1997;9:223-229.
11. **Barry TP**, Parrish JJ, Malison JA. Effects of early handling on the development of the corticosteroid stress response in rainbow trout. *In: Proceedings of the International Congress on the Biology of Fishes.* D. MacKinlay Ed., San Francisco, CA. pp. 131-137, 1996.
12. **Barry TP**, Riebe J, Parrish JJ, Malison JA. $17\alpha,20\beta$ -dihydroxy-4-pregnen-3-one stimulates cortisol production by rainbow trout interrenal tissue *in vitro*: mechanism of action. *In: Proceedings of the Fifth International Symposium on Reproductive Physiology of Fish.* P. Thomas and F. Goetz, Eds., Austin, Texas, p. 325, 1996.
13. **Barry TP**, Lapp AF, Procarione LS, Malison JA. Effects of selected hormones and male cohorts on steroid production, final oocyte maturation and ovulation in walleye (*Stizostedion vitreum*). Aquaculture 1995;138:331-347.
14. **Barry TP**, Ochiai M, Malison JA. *In vitro* effects of ACTH on interrenal corticosteroidogenesis during early larval development in rainbow trout. General and Comparative Endocrinology 1995;99:382-387.
15. **Barry TP**, Malison JA, Held JA, Parrish JJ. Ontogeny of the cortisol stress response in rainbow trout. General and Comparative Endocrinology 1995;97:57-65.
16. Malison JA, Procarione LS, **Barry TP**, Kapuscinski AR, Kayes TB. Endocrine and gonadal changes during the annual reproductive cycle of the freshwater teleost *Stizostedion vitreum* ('walleye'). Fish Physiology and Biochemistry 13:473-484.
17. **Barry TP**, A.F. Lapp, Kayes TB, Malison JA. 1994;Validation of a microtitre plate ELISA for measuring cortisol in fish and comparison of stress responses of rainbow trout (*Oncorhynchus mykiss*) and lake trout (*Salvelinus namaycush*). Aquaculture 1993;117:315-363.
18. Malison JA, Kayes TB, J.A. Held, **Barry TP**, Amundson CH. Manipulation of ploidy in yellow perch (*Perca flavescens*) by heat shock, hydrostatic pressure shock, and spermatozoa inactivation. Aquaculture 1993;110:229-242.
19. **Barry TP**, Thomas P, Callard GV. Stage-related production of 21-hydroxylated progestins by the dogfish (*Squalus acanthias*) testis. J Experimental Zoology 1993;265: 522-532.
20. **Barry TP**, Castanos MT, Macahilig MPSC, Fast AW. Spawning induction in female spotted scat (*Scatophagus argus*). J Aquaculture Tropics 1993;8:121-129.
21. **Barry TP**, Fast AW. Biology of the spotted scat (*Scatophagus argus*) in the Philippines. Asian Fisheries Science 1992;5:163-179.
22. **Barry TP**, Castanos MT, Fast AW. Induced spermiation in the male spotted scat (*Scatophagus argus*) by long-term administration of 17α -methyltestosterone followed by LHRHa. Asian Fisheries Science 1991;4:137-145.
23. **Barry TP**, Aida K, Okumura T, Hanyu I. The shift from C-19 to C-21 steroid synthesis in spawning male common carp, *Cyprinus carpio*, is regulated by the inhibition of androgen production by progestogens produced by spermatozoa. Biology of Reproduction 1990;43:105-112.
24. **Barry TP**, Santos AJG, Furukawa K, Aida K, Hanyu I. Steroid profiles during spawning in male common carp. General and Comparative Endocrinology 1990;80:223-231.
25. Asahina K, **Barry TP**, Aida K, Nobuhiro F, Hanyu I. Biosynthesis of $17\alpha,20\beta$ -dihydroxyprogesterone by spermatozoa of the common carp, *Cyprinus carpio*. J Experimental Zoology 1990;255:244-249.
26. **Barry TP**, Callard GV. Identification and stage-related synthesis of 11-deoxycorticosterone (DOC) by the dogfish (*Squalus acanthias*) testis. Bulletin of the Mount Desert Island Biological Laboratory 1990;29:131-132.

27. Fast AW, Biona HD, **Barry TP**, Tabanda R, Bayogos R. Brackish water pond culture of the spotted scat (*Scatophagus argus*) in the Philippines. J Aquaculture Tropics 1989;4:37-49.
28. **Barry TP**, Aida K, Hanyu I. Effects of $17\alpha,20\beta$ -dihydroxy-4-pregnen-3-one on the *in vitro* production of 11-ketotestosterone by testicular fragments of the common carp, *Cyprinus carpio*. J Experimental Zoology 1989;251:117-120.
29. **Barry TP**, E.G. Grau. Estradiol- 17β and thyrotropin-releasing hormone stimulate prolactin release from the pituitary gland of a teleost fish *in vitro*. General and Comparative Endocrinology 1986;62:306-314.

C. Research Support

Ongoing support:

EPA STAR (Co-PI)

3/1/2007-2/28/2011

Fate and effects of hormones in waste from concentrated animal feeding operations (CAFOs)

The goal is to evaluate the impact of hormones and hormone metabolites associated with CAFOs on the reproduction of fathead minnows.