

CURRICULUM VITA

John R. McConaugha

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Old Dominion University
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Education

University of Southern California Ph.D., Biology, 1977

University of Miami B.S., Biology, 1970

Experience

1988 - present Associate Professor, Old Dominion University.

1990 -1998 Assistant Chairman, Oceanography Department.

1983 - 1995 Consultant, NOAA, National Marine Fisheries Service, Wetland Assessment and Utilization

1982 - 1987 Assistant Professor, Old Dominion University.

1980 - 1982 Research Assistant Professor, Old Dominion University.

1977 - 1979 Research Associate, Duke University Marine Laboratory.

1974 - 1977 Project Manager, Los Angeles Harbors Environmental Project, Allan Hancock Foundation, University of Southern California.

1970 - 1975 Teaching Assistant, University of Southern California.

Other Activities

1999 Member of Virginia Joint Legislative Task Force on Winter Dredge Fishery

1995-present Member, Chesapeake Bay Commission, Bi-state Blue Crab Committee, Technical Working Group.

1992- 1995 ODU Representative Southeast Association of Marine Laboratories
ODU Representative National Association Marine Laboratories.

- 1984 - 1990 Member, NOAA, Chesapeake Bay Stock Assessment Committee.
- 1984 - 1987 Member, National Oceanic and Atmospheric Administration, Chesapeake Bay Stock Assessment Sub-Committee on Status of the Stocks.

Honorary and Professional Societies

Phi Kappa Phi
Sigma Xi
Phi Sigma
Phi Eta Sigma
Southern California Academy of Science
American Society of Limnology and Oceanography

Research Interests

Fisheries Oceanography
Larval Distribution and Recruitment
Reproduction of Marine Organisms
Environmental Effects Research

Publications

- McConaughy, JR. (2004) The potential of lipofusion as an aging technique for the horseshoe crab, *Limulus polyphemous*. In revision
- McConaughy, J. R., 2002 Alternative feeding mechanisms and prey selection in post-larval megalopae of the blue crab, *Callinectes sapidus*. Marine Biology 140: 1227-1233.
- Reiss, C.S. and J.R. McConaughy, 1999. Cross-frontal transport and distribution of ichthyoplankton in Virginia Shelf waters associated with Chesapeake Bay plume dynamics. Coastal Shelf Science. 19: 151-170.
- Brumbaugh, R. D. and J. R. McConaughy, 1998 Shallow coastal lagoons as a recruitment habitat for blue crab postlarvae. In: Proc. Marine and Shallow Water Conf.
- Brumbaugh, R. D. and J. R. McConaughy, 1995, Time to metamorphosis of blue crab *Callinectes sapidus* megalopae: Effects of benthic algae. Mar. Ecol. Prog Ser. 129:113-118.
- McConaughy, J.R. and S. Rebach, 1993. Crustaceans as Ecologically Valuable Species. In: Chesapeake Bay Ecologically Valuable Species, S. Jordan, ed.
- McConaughy, J. R., 1992. Decapod Larval Dispersal Mortality and Ecology. A working hypothesis.

- Am. Zool. 32:512-523.
- McConaugha, J. R. 1991 Limb regeneration in the mud crab Rhithropanopeus harrisi following removal of developing limbs. J. Exp. Zool. 257:64-69.
- McConaugha, J. R., P. A. Tester, and C.S.McConaugha, 1991. Feeding and growth in meroplanktonic larvae of Callinectes sapidus (Crustacea: Portunidea) Proc. International Crustacean Conference. In: Memoirs Queensland Museum.
- Prager, M.H., J. R. McConaugha, C. Jones and P. Geer. 1990. Fecundity of blue crab, Callinectes sapidus in Chesapeake Bay: Biological, statistical and management considerations. Bull. Mar. Sci. 46(1): 170-179.
- Havens, K. and J. R. McConaugha. 1990, Molting in the mature female blue crab, Callinectes sapidus, Rathbun. Bull. Mar. Sci. 46 (1):37-47.
- Jones, C., J. R. McConaugha, P. J. Geer and M. H. Prager. 1990 The Chesapeake Bay blue crab spawning stock in 1986 and 1987. Bull. Mar. Sci. 46(1):159-169.
- McConaugha, J.R. 1988. Estuarine-shelf interactions as regulators of estuarine decapod population dynamics. Proc. Army Corp Symposium on Larval Fish and Shellfish Transport Through Coastal Inlets. Trans. Am. Fish Soc. Sym. 3:909-103.
- McConaugha, J. R. and J. D. Costlow. 1987. The role of ecdysone and eyestalk factors in regulating regeneration in larval crustaceans. Gen. Comp. Endocrino. 66:387-393.
- McConaugha, J. R., 1985. Larval nutrition and growth. In: Crustacean Issues Vol. 2 Growth. A. Wenner, Ed., Balkema Press, The Netherlands. pp 123-152.
- Johnson, D. R., B. S. Hester and J. R. McConaugha, 1984. Studies of a wind mechanism influencing the recruitment of blue crabs in the Middle Atlantic Bight. Continental Shelf Research.3:425-437.
- McConaugha, J. R., D. F. Johnson, A. J. Provenzano and R. Maris, 1983. Seasonal distribution of larvae of Callinectes sapidus (Crustacean: Decapoda) in the waters adjacent to the Chesapeake Bay. J. Crustacean Biology 3:582-591.
- Provenzano, A. J., J. R. McConaugha, K. Phillips, D. J. Johnson and J. Clark, 1983. Diurnal vertical distribution of Callinectes sapidus larvae in the mouth of the Chesapeake Bay. Estuarine, Coastal Shelf Sci. 16:489-499.
- McConaugha, J. R., 1982. Regulation of crustacean morphogenesis in larvae of the mud crab Rhithropanopeus harrisi. J. Exp. Zool. 222:155-163.

- McConaugha, J. R., 1980. Identification of the y-organ in the larval stages of the crab Cancer anthonyi. J.Morph.164:83-88.
- McConaugha, J. R. and J. D. Costlow, 1980. Ecdysone regulation of larval crustacean molting. Comp. Biochem. Physiol. 86A:91-93.
- McConaugha, J. R. and J. D. Costlow, 1980. Regeneration in larvae and juveniles of the mud crab Rhithropanopeus harrisii. J. Exp. 213:247-256.
- McConaugha, J. R., K. McNally, J. W. Goy, and J. D. Costlow, 1980. Winter induced mating and spawning in the stone crab Menippe mercenaria. Proc. World Mariculture Soc. 10:544-547
- McConaugha, J. R., 1979. The effects of 20-hydroxyecdysone on survival and development of first and third stage Cancer anthonyi larvae. Gen. Comp. Endocrin. 37:421-427.
- McConaugha, J. R., 1976. The effects of resuspended sediment from the Los Angeles Harbor on two species of Crustacea. In: Marine Studies of San Pedro Bay, California. D. Soule and M. Oguri, eds., Vol 11: 49-67.
- McConaugha, J. R., 1976. Bioassay investigations of the impact of wastes on the copepod Acartia tonsa. In: Marine Studies of San Pedro Bay, California. D. Soule and M. Oguri, eds. Vol 12:221-225.
- McConaugha, J. R., 1976. Micro-heterotrophic uptake of organics in seawater. In: Marine Studies of San Pedro Bay, California. D. Soule and M. Oguri, eds, Vol 12:226-232.

Papers in Preparation

- McConaugha, J. R. Feeding rates and energetics of *Callinectes sapidus* larvae fed a mixed diet.
- McConaugha, J. R. Mechanisms for suspension feeding in juvenile blue crabs.
- McConaugha, J.R., Reiss C.S. and R.D. Brumbaugh. *Callinectes sapidus* larval distribution on the Virginia shelf: Does it support the retention hypotheses?

Technical Reports

- McConaugha, JR. Final Report on Histological Lipofuscin as an aging technique for the blue crab. NOAA, Chesapeake Bay Program. September 2001.
- McConaugha, J. R. 2001. Biochemical aging of the blue crab *Callinectes sapidus*. Final report to

- NOAA Chesapeake Bay Office.
- McConaugha, J. R., 1999. Winter Dredge Fishery: Impact on Blue Crab Spawning Stock. Final Report to NOAA Chesapeake Bay Office.
- McConaugha, J. R. 1999. Winter Dredge Fishery: Impact on Blue Crab Spawning Stock. Chesapeake Bay Stock Assessment Committee Workshop Report. Pp 25-31.
- McConaugha, J. R., 1999. Biochemical Measures of age in the blue crab, *Callinectes sapidus*. Chesapeake Bay Stock Assessment Committee Workshop Report. Pp 51-59.
- McConaugha, J. R., 1996. Chesapeake Bay Blues. Final report to Earthwatch. 15 pp.
- McConaugha, J.R. and R. Brumbaugh, 1995, Chesapeake Bay Blue. Final report to Earthwatch. 27 pp.
- McConaugha, J.R., 1992. Tag Recapture Study of Chesapeake Bay Blue Crabs. Final Rpt. NOAA NMFS.
- McConaugha, J. R. and C. Jones 1991. Tag-Recapture Study of Chesapeake Bay Blue Crabs ODURF Technical Report 91-1.
- Varnell, L. M. and J.R. McConaugha, 1990. Temporal and spacial distribution of blue crab larvae adjacent to Chesapeake Bay. 1982 - 1983. ODURF Technical Report 90-6.
- McConaugha, J. R., C. Jones, M. H. Prager 1987. Analysis of Chesapeake Bay blue crab spawning stock. Report NOAA, Estuarine Program Office.
- McConaugha, J. R. and A. J. Butt 1985. Abundance analysis of zooplankton populations from the lower Chesapeake Bay. Report to Naval Underwater System Center.
- Prager, M. H. and J. R. McConaugha 1985. Analysis of Chesapeake Bay Striped Bass Stocks. pp 320.
- McConaugha, J. R., 1984. Potential impact of Thimble Shoals dredge project on blue crab reproduction, spawning and larval recruitment. In: An Environmental Assessment of Thimble Shoal Channel Barrow Site. G. J. Hall, Editor.
- McConaugha, J. R., 1983. Blue crab larval recruitment Proc. Blue Crab. Stock Dynamics Workshop. So
- Hester, B. S. and P. R. Mundy, D. R. Johnson and J. R. McConaugha, 1983. Impediments to rational regulation of harvest for the blue crab on Chesapeake Bay. Proc. Blue Crab

Stock
Dynamics Workshop. Solomons, MD. December, 1982.

McConaugha, J. R., 1983. Blue crab larval distribution and recruitment. Current Oceanography Climatological News.

McConaugha, J. R., 1983. Blue crab larval recruitment models as a fisheries management technique. Chesapeake Bay Bi-State Fisheries Management Workshop, Waldorf, MD., September, 1983.

Provenzano, A. J. and J. R. McConaugha, 1981. Distribution and migration of blue crab larvae in the lower Chesapeake Bay and adjacent coastal waters. Virginia Sea Grant Program, NOAA Sea Grant NA79AA-D-00055.

Research Papers Presented at Professional Meetings

2003 McConaugha, J.R. Blue crab population problems: Does man or mother nature get the blame? Seminar VIMS. July

McConaugha, J.R. Omnivory in Decapod Larvae: Implications for Recruitment Success, ASLO Aquatic Sciences. February.

2001 McConaugha, J and C. S. McConaugha. Phenotypic plasticity in age and size at maturity in *Callinectes sapidus*: Adaptive mechanism for optimal reproduction. ASLO Aquatic Sciences. February.

2000 McConaugha, J. R. Phenotypic plasticity and blue crab reproductive potential. Virginia Marine Resources Committee, April.

McConaugha, J. R. Phenotypic Plasticity and Self Recruitment in *Callinectes sapidus*: Adaptive Mechanisms for Optimal Reproduction. International Larval Ecology Meetings, Santa Cruz, CA. June.

McConaugha, J.R. Blue crab larval transport and recruitment Virginia Marine Resources Commission, October.

1999 McConaugha, J.R. Winter Dredge Fishery: Impact on blue crab spawning stock. In Chesapeake Bay Stock Assessment Committee Workshop. NOAA Jan, 1999 (Invited)

McConaugha, J.R., Biochemical measures of age in the blue crab, *Callinectes sapidus*. In Chesapeake Bay Stock Assessment Committee Workshop. NOAA. Jan, 1999 (Invited)

McConaugha, J.R. and C. S. McConaugha Omnivory in decapod larvae: Implications for

- growth and recruitment. American Society of Limnology and Oceanography, Santa Fe, NM, Feb, 1999 (Invited)
- McConaugha, J.R. Biochemical aging techniques and evidence for growth overfishing. Virginia Marine Resources Commission, April, 1999.
- McConaugha, J.R. Aging Techniques in Blue Crabs and Estimating Mortality Rates. Crustacean Society, Symposium on Blue Crab Mortality, May 1999 (Invited).
- McConaugha, J.R. The Blue Crab: Past Knowledge and Future Insights. Society of Wetland Scientists, June, 1999 (Invited)
- McConaugha, J.R. Reduced Size of Female Blue Crabs: Fishing Pressure or Biological Response. American Fisheries Society, August, 1999 (Invited).
- McConaugha, J.R. Review of the Status of the Blue Crab population in Chesapeake Bay. US Fish and Wildlife Service, Region 5, Ecosystems Team. Nov 1999, (Invited)
- McConaugha, J.R. Recent Trend in Blue crab Fishery, Demarva Coastal Bays Conference III, Nov, 1999 (Invited)
- 1998 Alternative Feeding Mechanisms in Megalopae of *Callinectes sapidus*. International Larval Ecology Meetings, Melbourne, Aust. Jan
- Alternative Feeding Styles: Is it the answer to low prey densities in the Plankton. North Carolina State University, Institute of Marine Science, March
- 1997 Fisheries Oceanography: Physics and Biology. Seminar, Department of Oceanography, ODU. Jan.
- Bob Dylan=s answer to the blue crab problem. Sigma Xi, Tidewater Chapter, Jan.
- Feeding mechanisms in planktonic crustacean larvae. American Society of Limnology and Oceanography, Aquatic Science Meeting, Santa Fe, NM, Feb.
- Beautiful swimmers: A long Days Journey into Night. National Audubon Society, Smithsonian Institute, Washington, DC. March
- 1996 Blue crab larval recruitment: Impact of natural fluctuations on future harvests. Seminar. Chesapeake Biological Station, MD, March.
- Prey selection and feeding mechanisms in brachyuran megalopae: The *Callinectes sapidus* model. Benthic Ecology Meetings, March.

- 1995 Time to metamorphosis in the blue crab *Callinectes sapidus* megalopae: Effects of benthic macroalgae. Marine and Shallow Water Conference, Atlantic City, N.J. April 3-5. (with R. Brumbaugh)
- Flux of blue crab, *Callinectes sapidus*, megalopae in Virginia barrier island lagoons. Marine and Shallow Water Conference, Atlantic City, N.J. April 3-5. (with R. Brumbaugh)
- Planktonic energetics: Do meroplankton count? Crustacean Society, Harbor Branch, June, 1995
- Distribution of ichthoplankton in the Virginia sea during a summer upwelling event. International Larval Ecology Meetings, Harbor Branch, August, 1995. (with C. Reiss)
- Shallow coastal lagoons as a recruitment habitat for blue crab postlarvae. International Larval Ecology Meetings, Harbor Branch, Aug, 1995 (with R. Brumbaugh)
- Effects of benthic macroalgae on metamorphosis in blue crab postlarvae. Estuarine Reserach Federation, Nov, 1995 (with R. Brumbaugh).
- Prey selection and feeding mechanisms in brachyuran megalopae: The *Callinectes sapidus* model. American Society of Zoologists, Washington, DC, Dec, 1995.
- 1994 Chesapeake Bay Blues. Earthwatch Annual Meeting , Boston, Oct 25.
- 1993 Estuarine plumes; Barrier or enhancement to recruitment of the blue crab, Callinectes sapidus. Am. Soc. Limnology and Oceanography. Edmonton, May 30.
- Possible role of mesoscale physical features (Fronts and Lenses) on recruitment mechanisms to Chesapeake Bay. International Larval Ecology Meetings. Long Island, NY. Aug. 20.
- Estuarine plumes; Barrier or enhancement to recruitment of the blue crab, Callinectes sapidus. International Larval Ecology Meetings. Long Island, NY. Aug. 20.
- Spawning stock, fecundity and population dynamics of the blue crab, Callinectes sapidus Invited Symposuim Paper. Estuarine Research Federation Meetings. Hilton Head, S.C., Nov. 1993.
- Estuarine Plumes; Barrier or enhancement to recruitment. Invited Symposium Paper. Estuarine Research Federation Meetings. Hilton Head, S.C. Nov. 1993.
- 1992 Impact of decapod larvae on the seasonal ecology of the water column. ASLO Santa Fe.

February.

Migration and spawning: the adventurous life of Callinectes sapidus. (with C.S. McConaugha, L.A. Drake, and W. S. Check) Crustacean Society Summer Meeting, Charleston, SC. June.

Migration and spawning in the Blue Crab Callinectes sapidus: Results of a Tagging Study: American Society of Zoologists, Vancouver, B.C. (with C.S. McConaugha, L.A. Drake and W.S. Check)

1991 The effects of habitat availability on the growth of juvenile blue crabs (with C.S. McConaugha) American Society of Zoologists, Atlanta December.

1990 Feeding and growth in meroplanktonic crustaceans. Ocean Sciences Meetings, American Geophysical Union/ASLO New Orleans, LA. February.

Feeding in meroplanktonic larvae of Callinectes sapidus. Am. Soc. Limno. Ocean. June, Williams

Feeding and Growth in meroplanktonic larvae of Callinectes sapidus (Invited Paper) International Crustacean Conference: Brisbane, Australia. July.

Decapod larval ecology. (Invited Paper) The Compleat Crab Symposium. American Society of Zoologists. San Antonio, Texas. December

1989 Reproductive and recruitment strategies of the portunid crab, Callinectes sapidus. Invited paper Fifth International Congress of Invertebrate Reproduction. Nagoya, Japan.

1988 Interannual variation in Callinectes sapidus population densities: Biological and physical factors. National Blue Crab Conference. Virginia Beach, VA. May.

Molting in the mature female blue crab, Callinectes sapidus, Rathbun. National Blue Crab Conference, Virginia Beach, VA. May (Second author with K. Havens).

Characterization of Callinectes sapidus spawning stock in Chesapeake Bay: Interannual variations. National Blue Crab Conference, Virginia Beach, VA. (Second author with C. Jones and P. Geer).

The physiological and bioenergetic responses of blue crab larvae to diet and seasonality. National Blue Crab Conference. Virginia Beach, VA. May (Second author with J. Pletl).

Temporal and spatial distribution of blue crab larvae on the Mid-Atlantic Bight, 1982-1983. National Blue Crab Conference. Virginia Beach, VA. May (Second author with L.

- Varnell).
- Feeding rates and prey selectivity of Callinectes sapidus larvae. Amer. Soc. Zool., San Francisco, CA. December.
- Nutritional requirements of Callinectes sapidus larvae and field availability of food. Amer. Soc. Zool. San Francisco, CA. December. (Second author with J. Pletl).
- 1987 Characterization of Callinectes sapidus spawning stock in Chesapeake Bay: Reproductive potential and periodicity. Amer. Soc. Zool. New Orleans. December.
- Effects of diet quality on the physiology and energetics of the blue crab, Callinectes sapidus. Amer. Soc. Zool. New Orleans. December.
- 1986 Spatial and temporal variability of decapod larval distributions as regulating factors in estuarine decapod population dynamics. National Shellfish Association, Seattle, WA. 22-26 June.
- Diurnal vertical distribution and dispersal-recruitment mechanisms of decapod crustacean larvae and postlarvae in the Chesapeake Bay Virginia and adjacent waters. (Second author with R. C. Maris). National Shellfish Association, Seattle, WA. 22-26 June.
- Assessment of C. sapidus spawning stock size, reproductive periodicity and fecundity in Chesapeake Bay. Amer. Soc. Zool. Nashville, TN. December.
- 1985 Dynamics of blue crab (Callinectes sapidus) larval distribution and recruitment. International Workshop on Lobster Recruitment. St. Andrews, New Brunswick 30 June - 5 July, 1985. Invited paper.
- Estuarine-shelf interactions as potential regulators of estuarine populations. Army Corps Workshop on Estuarine and Shelf Interactions. Washington, D.C. September 5-7.
- 1984 Fisheries Oceanography: Present and Future Directions. Invited Paper. National Oceanic and Atmospheric Administration Review of Marine Resources Research Program. Washington, D.C. September 5-7.
- The effects of temperature and salinity on growth rates of juvenile blue crabs (Callinectes sapidus). Annual Meeting American Society of Zoologists, Denver, Colorado. December 27-30.
- 1983 Blue crab larval dispersal and recruitment. Invited seminar. Office of National Sea Grant, Washington, D.C.
- A descriptive model for offshore dispersal of larval blue crabs (Callinectes sapidus) and reinvasion into lower Chesapeake Bay. Special Session on Origins and Distributions of Caribbean-Gulf of Mexico Crustacean Fauna. 44th Annual Meeting of Association of Estuarine Research Federation, San Francisco, CA. November 1983.

- Southeastern Biologists, Lafayette, Louisiana. April 13-16.
- Is there a terminal molt in female blue crabs? National Shellfish Association, Hilton Head, SC. June 7-13.
- Blue crab larval recruitment models and their implications for fisheries management. Invited paper, Chesapeake Bi-State Fisheries Management Workshop, Waldorf, MD. September 7-9.
- Blue crab recruitment mechanisms, Northeast Monitoring Program, NOAA, Norfolk, October 27. Invited paper.
- The larval stages as a migratory phase in the life history of the blue crab. Bi-Annual Estuarine Research Federation Meetings, Virginia Beach, VA. October 22-26.
- Blue crab larvae dispersal and recruitment. Invited Seminar; Department of Biology, Old Dominion University, November 3.
- Effects of diurnal vertical distribution and patchiness of decapod larvae on dispersal along the inner continental shelf. Annual Meeting American Society of Zoologists, Philadelphia, PA. December 27-30. (with R. Maris).
- 1982 A physical model of blue crab larval distribution (with B. Hester and D. R. Johnson). Atlantic Estuarine Research Society, Baltimore, MD. April 23-24.
- A descriptive model for the conservation of blue crab larvae in the vicinity of Chesapeake Bay. National Shellfish Association, Baltimore, MD. June 14-17.
- Significance of the neuston layer in the dispersal of blue crab larvae. National Shellfish Association. Baltimore, MD. June 14-17. (with A. J. Provenzano and D.F. Johnson).
- Role of nutrition in larval Decapoda growth and metamorphosis. Invited paper, Symposium on Factors Influencing Crustacean Growth. American Society of Zoologists, Louisville, KY. December 27-30.
- 1981 Nutrition, molting and morphogenesis in decapod larvae. Second International Conference on Aquaculture Nutrition. Rehobeth Bay, DEL. October 27-29.
- Offshore displacement and reinvasion of *Callinectes sapidus* larvae in Chesapeake Bay. Estuarine Research Foundation, Portland, OR. November 1-6.
- 1980 Winter induced mating in the stone crab *Menippe mercenaria* (with K. McNally, J. W. Goy and J.

The effect of ecdysone and eyestalk factors on limb regeneration in the mud crab Rhithropanopeus harrisii. American Society of Zoologist, Seattle, WA. December 27-30.

Distribution and migration of blue crab larvae in lower Chesapeake Bay and adjacent coastal waters. American Society of Zoologists, Seattle, WA. December 27-30.

1979 The relationship between limb development and metamorphosis in Rhithropanopeus harrisii. (with J. D. Costlow). American Society of Zoologists, Tampa, FL. December 27-30.

1978 Regeneration in megalopa and juvenile stages of Rhithropanopeus harrisii. (with J.D. Costlow). American Society of Zoologists, Richmond, VA. December 27-30.

1977 The ecdysial gland in the larval stages of the crab Cancer anthonyi. American Society of Zoologists, New Orleans. June 25-30.

Hormonal control of larval crustacean development. Southern California Academy of Science, California Polytech, Pomona, CA. May 14-15.

The effects of exogenous 20-hydroxyecdysone on first and third stage zoea of the crab, Cancer anthonyi. American Society of Zoologists, Toronto, Canada, December 27-30.

1976 Development of the ecdysial gland in larval stages of the crab Cancer anthonyi. Southern California Academy of Science, Santa Barbara, CA. May 7-8.

Grants Awarded (at Old Dominion University)

Current Funding

McConaughy J.R. Blue crab reproduction: Changes in age and Size at maturity and size fecundity relationships in a reduced population. NOAA Sea Grant, \$142,632. Febuary 1, 2005-January 30, 2007. Pending Congressional Budget Approval.

McConaughy, J.R. Chesapeake Bay Oceanography: A K-12 teachers workshop.\$36,926. NOAA Chesapeake Bay Program, June 1, 2005-May 30, 2006. Pending

Previous Funding at ODU

Provenzano, A.J. (Principal Investigator). J.R. McConaughy, R.J. Johnson and W. Van Engel (Associate Investigators). Sea Grant, NOAA-VIMS. Distribution and migration of blue crab larvae in lower Chesapeake Bay and adjacent waters. January 1, 1980-December 31, 1980. \$82,500

McConaughy, J. R. (Principal Investigator). NSF, Seaport Management Young Scientist Award. Biological Control of Marine Fouling. June 1, 1980 - August 15, 1980. \$2,300.

Provenzano, A. J. and J. R. McConaughy (Co-Principal Investigators), Sea Grant, NOAA-VIMS. Distribution and migration of blue crab larvae in lower Chesapeake Bay and adjacent coastal waters. January 1, 1981 - December 31, 1981. 67,500.

McConaughy, J. R. (Principal Investigator). Regulation of crustacean morphogenesis. Old Dominion University. Faculty Research Fellowship. April 1, 1981 - December 15, 1981. \$4,200.

McConaughy, J. R. (Principal Investigator) and A. J. Provenzano. Sea Grant, NOAA. Distribution and recruitment of blue crab larvae in the Mid-Atlantic Bight. January 1, 1982 - December 31, 1982. \$56,990.

McConaughy, J. R. (Principal Investigator) and D. R. Johnson Distribution and recruitment of blue crab larvae in the Mid-Atlantic Bight: A physical model. June 1, 1982 - December 31, 1982. \$7,000.

McConaughy, J. R. (Principal Investigator). Crustacean regeneration: Formation and maintenance of the blastema. Old Dominion University, Faculty Research Fellowship. April 1, 1982 - December 15, 1982. \$4,200.

McConaughy, J. R. (Principal Investigator). Sea Grant, NOAA. Distribution and recruitment of blue crab larvae in the Mid-Atlantic Bight. January 1, 1983 December 31, 1983. \$53,500.

McConaughy, J. R. and D. R. Johnson (Co-Principal Investigators). Sea Grant, NOAA. Distribution and recruitment of blue crab larvae: A physical model. January 1, 1983 - December 31, 1983. \$70,700.

McConaughy, J. R. (Principal Investigator). Investigation of the terminal molt hypothesis in the blue crab. Sea Grant, NOAA. March 1, 1983 - December 31, 1983. \$7,000.

McConaughy, J. R. (Principal Investigator). Sea Grant, NOAA. Distribution and recruitment of blue crab larvae in the Mid-Atlantic Bight. January 1, 1984 December 31, 1984. \$53,300.

Johnson, D. R. and J. R. McConaughy (Co-Principal Investigators). Sea Grant, NOAA. Distribution and recruitment of blue crab larvae: A physical model. January 1, 1984 - December 31, 1984. \$68,990.

Mundy, P. R., E. Barth, L. Rugolo, and J. R. McConaugha (Co-Principal Investigator). An analysis of seasonal performance information for the management of commercial striped bass harvests in the Chesapeake Bay and its tributaries. NOAA, Office of Coastal Zone Management. August 1 - August 31, 1985. \$28,000.

McConaugha, J. R. (Principal Investigator). Impact of dredge operations on blue crab reproduction, spawning, larval recruitment and juvenile migration. Virginia Department of Transportation. August, 1984. \$2,849.

McConaugha, J. R. (Principal Investigator). Vertical position of blue crab larvae as a mechanism for reinvasion of the estuary. NOAA, Sea Grant. January 1, 1985 - December 31, 1985. \$58,880.

Johnson, D. R. and J. R. McConaugha (Co-Principal Investigators). Distribution and recruitment of blue crab larvae: A physical Model. NOAA, Sea Grant. January 1, 1985 - December 31, 1985. \$76,370.

McConaugha, J. R. (Principal Investigator) and A. J. Butt. Abundance analysis of zooplankton populations from the lower Chesapeake Bay. U. S. Naval Underwater System Center. February, 1985. \$1,805.

McConaugha, J. R. and M. H. Prager (Co-Principal Investigators). Stock Assessment of Chesapeake Bay Blue Crab. Estuarine Programs Office NOAA. 1 July, 1985 - 31 December, 1986. \$53,000.

McConaugha, J. R. (Principal Investigator). Biological interactions as determinates of blue crab annual recruitment. Sea Grant, NOAA. January, 1986 - 31 December, 1989. \$304,900.

McConaugha, J. R., M. H. Prager, C. Jones (Co-Principal Investigators). Stock assessment of Chesapeake Bay blue crab. NOAA, Estuarine Program Office. September, 1986 - 31 March, 1988. \$53,000.

McConaugha, J. R. and C. Jones. Mark - recapture of Chesapeake Bay female blue crabs. NOAA, Estuarine Program Office. September, 1988 - December, 1990. \$307,450.

McConaugha, J. R. Blue crab megalopal recruitment to Chesapeake Bay. Sea Grant July -December, 1989. \$5,500.

McConaugha, J. R. and W. Check. Blue crab megalopal recruitment to Chesapeake Sea Grant Bay June - December 1990 \$7,875.

McConaughy, J. R. and M. H. Prager. Aging in Callinectes sapidus. Sea Grant June - Dec. 1990 \$8,000.

McConaughy, J. R. Blue crab megalopa recruitment: Role of fronts and meso-scale physics. Sea Grant Feb. 1, 1991 - July 30, 1994. \$270,710.

Chesapeake Bay Blues. Earthwatch Inc. May 1994-October, 1995. \$25,000.

Secondary production in Greens Creek watershed, Virginia's Eastern Shore, Virginia Coast Reserve. July, 1995- March, 1996. \$4,958

Chesapeake Bay Blues. Earthwatch Inc, May - Oct, 1996. \$14,000

Winter Dredge Fishery: Impact on blue crab spawning stock., Virginia Marine Resources Commission. \$61,529. Oct 1, 1996-Sept 30,1997.

Biochemical Measures of Age in the Blue Crab: Lab and Field Verification, NOAA Chesapeake Bay Program, \$316,000. Oct. 1, 1996 - Feb. 28, 2001.

Winter Dredge Fishery II: Impact on blue crab spawning stock., NOAA Chesapeake Bay Program, \$25,000, Oct 1, 1997- February 18, 1999.

Application of the Morphological Lipofuscin Technique to Aging the Horseshoe Crab, Limulus polyphemus. Virginia Sea Grant. \$5,029. May 1 - Oct 31, 2000.

(at Duke University)

Costlow, J.D. (Principal Investigator), and J.R. McConaughy (Associate Investigator), Office of Naval Research. Studies on molting and growth in larval and adult barnacles and larval decapods. January, 1978-December 31, 1978.

Costlow, J.D. (Principal Investigator), J.R. McConaughy and J.A. Freeman (Associate Investigators), Office of Naval Research. Studies in molting and growth in larval and adult barnacles and larval decapods. January 1, 1979-December 31, 1979.

(At Southern California)

McConaughy, J. R. (Principal Investigator), Sigma Xi Grant-in-Aid. The molting gland in crustacean development and metamorphosis. June,1974.

McConaughy, J. R. (Principal Investigator), NIH Biomedical Sciences Support Grant. Development of the crustacean endocrine system. July, 1975.

McConaugha, J. R. (Principal Investigator), NIH Biomedical Sciences Support Grant. Development of the crustacean ecdysial gland. October, 1975.

McConaugha, J. R. (Principal Investigator), NIH Biomedical Sciences Support Grant. In vitro culture of developing and regenerating crustacean limbs. May, 1977.

Courses Taught

Oceanography Seminar, Spring 1980, 1992.

Oceanography 746/846 - Development of Marine Organisms, Summer, 1980; Spring, 1984; Spring, 1986; Fall, 1987; Fall, 1989; Fall 1991.

Oceanography 747/847 - Reproduction of Marine Invertebrates, Fall, 1980; Fall, 1982; Fall, 1985; Fall, 1986; Fall, 1988; Fall 1990; Fall 1992, Fall, 1995. Fall,1999;Spring,2001; Spring, 2003; Spring 2005

Oceanography 640- Advanced Biological Oceanography, Core Class. Fall, 2000, 2001, 2002, 2003, 2004.

Oceanography 644 - Environmental Physiology of Marine Invertebrates, 1982, 1983, 1985, 1987, 1988, 1989, 1990, 1991, 1993, 1994, 1995, 1996, 1999, 2000,2002.

Oceanography 306 Oceanography for minors. Spring 2001.

Oceanography 406 - Oceanography for Science Majors, 1982; 1983; 1984.

Oceanography 693 - Special Topics: Hormonal Control of Crustacea,, 1984.

Oceanography 402/502 - Field Experiences in Oceanography for Teachers, 1991, 1992 1993,1994, 1995, 1996, 1997,1998, 1999, 2000, 2001, 2002, 2003,2004.

Oceanography 745/845 - Crustaceans in the Marine Environment, 1992

Oceanography 440/540 - Biological Oceanography, 1993, 1995, 1996, 2002: 2003 lab added, 2004, 2005.

Oceanography 448/548 Field experiences for Oceanography Minors, 1994, 1995, 1996.

Oceanography 404 Physiological Ecology. 1995, 1996, 1998, 1999, 2000, 2001, 2002, 2003, 2004.

Student Committee Chairmanships

Masters Degree, Thesis Option

P. J. Anninos. Non-genetic embryonic adaptation to salinity, and its subsequent effects on larval development of the grass shrimp, Palaeomonetes pugio. Graduated May, 1982.

M. Bundy. Simultaneous functional hermaphroditism in the shrimp Hippolyasmata wurdernanni (Gibbs) (Decapoda: Caridea: Hippolytidae) Graduated May, 1983.

J. Grabarczyk. Effects of PNAH's on the fecundity of Acartia tonsa. Graduated December, 1983.

P. Sadler - Spatial and temporal distribution of larvae of sympatric pagurid hermit crabs (Decapods, Anomuran) in Virginian estuarine and coastal waters. Graduated December, 1984.

L. Hanstke - Development of the mandibular gland in the mud crab Rhithropanopeus. Is it the source of crustacean juvenile hormone? Graduated December, 1986.

K. Havens. Terminal molt in the blue crab Callinectes sapidus. Graduated December, 1987.

L. Varnell. Temporal and spatial distribution of C. sapidus larvae in the Mid-Atlantic Bight, 1982- 1983. Graduated May, 1989.

G. White. Effects of organic pollutants on embryological and larval development of Rhithropanopeus. Graduated May 1991.

P. Geer. Abundance and distribution of spawning stock of Chesapeake Bay blue crab population. Graduate Dec, 1993.

Doctorate

D. F. Johnson. The use of retention or recruitment mechanisms by brachyuran crustacean in lower Chesapeake Bay. Graduated August, 1983.

R. Maris. Patterns of diurnal vertical distribution and dispersal-recruitment mechanisms of decapod crustacean larvae and postlarvae in the Chesapeake Bay, Virginia and adjacent offshore waters. Graduated May, 1986.

J. Pletl. The Physiology and Bioenergetics of the Developmental Stages of The Blue

Crab, Callinectes sapidus. Graduated Dec., 1992.

R. Brumbaugh. Reproductive Biology of Callinectes sapidus in lagoonal systems along the mid-Atlantic Bight. Graduated May, 1996.

C. Reiss. Influence of Physics on the Distribution of Ichthyoplankton across the Chesapeake Bay Plume, Graduated May, 1997

Shannon Wells, Reproductive biology of the blue crab.

Masters Degree, Non-Thesis Option

J. Hollowed Graduated May, 1981.

H. Winnik Graduated May, 1982.

T. Parham Graduated May, 1989.

L. Drake Graduated May, 1991.

A. Colizii Graduated May, 1991.

R. Brumbaugh Graduated May, 1992.

C. Kover Graduated May, 1992.

A. Allegra Graduated May, 1992.

R. Guo Graduated May, 1992.

C. Reiss Graduated Dec., 1992.

And others

Membership on Student Committees

Doctorate

B. F. Hester. Blue crab fisheries model. Graduated August, 1983.

H. A. Schaller. Determinants of the Timing of Escapement from the Sockeye Salmon Fishery, Copper River, Alaska: A Simulation Model. Graduated May, 1984.

E. J. Barth. An Investigation of a Intraseason Forecasting System for Commercial Marine

Fisheries Data. Graduated May, 1984.

L. Rugulo. Methods for the comparison of timing behavior applied to the pink salmon fisheries of Prince William Sound, Alaska. Graduated, 1984.

J. Kim. Energetics and Aquaculture of Black Sea Bass. Graduated August, 1988.

C. Guo. The kinetics of light intensity adaptation in the pigment composition of marine phytoplankton. Graduated 1992.

M. Helmstetter. Development and Standardization of Short-Term Assay For Evaluating Polluted Marine Environments: The Medaka Embryo-Larval Assay. Graduated, 1993.

Masters

E. Deaver. The effects of salinity on the growth and survival of the cray-fish, Procambarus acutus acutus. Graduated August, 1980.

B. Barrows. The effect of crowding on growth of the cichlid fish, Oceochromis. Graduated May, 1983.

M. Kelly. Jellyfish nutrition. Graduated December, 1983.

B. Hill. Virginia Weakfish Fisheries Model. Graduated May, 1984.

D. Shively. Timing of the Blue Crab and its application to harvest management. Graduated May, 1984.

B. Lowe. The salinity tolerance of Palaemonetes paludosus. Graduated May, 1988.

L. Dorworth. Picoplankton/Phytoplankton dynamics during periods of maximum and minimum water flow. Graduated May, 1989.

Professional Service

1979 Participant, Office of Naval Research, Bio-Fouling Workshop.

1980 Proposal review for Rutgers University Sea Grant Program.
Chair, Contributed Paper Session on Invertebrate Zoology for American Society of Zoologists at annual meeting.

1981 Participant, Office of Naval Research, Bio-Fouling Workshop.

1982 Reviewer, National Sea Grant Program;

National Science Foundation;
Invited Participant, EPA Chesapeake Bay Program; Toxicology Research
Review.

1983 Reviewer, National Science Foundation
National Sea Grant
Maryland Sea Grant
Journal Marine Biology
Ecology
Journal Shellfish Research
Estuaries
Bulletin of Marine Science

Invited Participant, Chesapeake Bay Bi-State Fisheries Management Workshop.

Invited Participant, Chesapeake Bay Bi-State Monitoring Workshop.

Participant, Chesapeake Bay Governor's Conference, Fairfax, Virginia,
December,

1984 Reviewer, National Science Foundation
Journal Marine Biology
Ecology
Estuaries

Chair, Contributed Paper Session, Annual Meeting, American Society of
Zoologist.

Virginia State Water Control Board, Chesapeake Bay Monitoring Committee.

1985 Reviewer, National Science Foundation
Marine Biology

1986 Member, National Sea Grant Site Team South Carolina Sea Grant Program
Reviewer, National Science Foundation
National Sea Grant Program
Canadian J. Fisheries and Aquatic Sciences

Chair, Contributed Paper Session Annual Meeting, American Society of
Zoologists

1987 Invited Participant, National Workshop, Long Range Research Plans
for Living Resources in Chesapeake Bay. Chairman, Blue Crab Working Group.
Invited Participant, Environmental Protection Agency Workshop on Living

Resources In Chesapeake Bay Chairman, Crustacean Working Group.

Member, Planning Committee, Southeastern Recruitment Initiative Proposal.
Member, Organizing Committee, National Blue Crab Symposium. Sponsored by
National Sea Grant and Virginia Sea Grant Programs. May, 1988.
Chief Responsibility, Proceedings Publication.

Reviewer, National Science Foundation
National Sea Grant
Environmental Protection Agency Chesapeake Bay Program
Limnology and Oceanography
Transactions American Fisheries Society
J. Experimental Biology and Ecology

1988 Co-Editor, Proceedings National Blue Crab Symposium.
Reviewer, National Science Foundation
J. Experimental Biology and Ecology.

1989 Reviewer, National Science Foundation
Maryland Sea Grant
J. Experimental Biology and Ecology
Transactions American Fisheries Society
Bulletin Marine Science.

1990 Reviewer, J. Crustacean Biology
J. Experimental Biology and Ecology.
Can J. Fish Aquatic Sciences
National Sea Grant
National Science Foundation
South Carolina Sea Grant Transaction Am. Fish Society
Chesapeake Bay Estuarine Program Habitat Requirements Committee

1991 Reviewer Can J. Fisheries Aquatic Science
Marine Biology(2)
National Sea Grant(2)
J. Exp Mar Biol. Ecol.
Mar. Ecol. Progress series
Alaskan Sea Grant
New York Sea Grant
NOAA-Albemarle Pamlico Estuarine Study
NOAA National Undersea Research Center, Univ. of Connecticut
South Carolina Sea Grant

Invited Participant, Chesapeake Bay Program Ecologically Valuable Species Workshop
Invited Participant Blue Crab Management Workshop

- 1992 Reviewer Canadian J. Fish Aquatic Science(2)
Mar. Ecol. Progress ser.
J. Exp. Mar. Biol. Ecol.(2)
Marine Biology
Louisiana Sea Grant
National Sea Grant
- 1993 Reviewer Estuaries (2)
Hudson River Foundation
Marine Biology
Canadian J. Fisheries Aquatic Science
American Naturalist
Department of Energy
Journal of Experimental Marine Biology and Ecology
- 1994 Reviewer, Journal of Experimental Marine Biology and Ecology (2)
Marine Biology
Bulletin Marine Science
Washington Sea Grant Program
- 1995 Reviewer, J Experimental Marine Biology and Ecology
Marine Biology
Marine Ecology Progress Series
Oregon Sea Grant Program
Bulletin Marine Science
- 1996 Reviewer, J Experimental Marine Biology and Ecology
Marine Biology
Marine Ecology Progress Series
- 1999 Organizer and Chair of Special Session at American Society of Limnology and
Oceanography International Meeting "Navigating into the Next Century"
- Reviewer, Maryland Sea Grant
North American Journal of Fisheries Management
Journal of Crustacean Biology
Oregon Sea Grant
New York Sea Grant
Marine Ecology progress Series

Experimental marine Biology and Ecology

- 2000 Reviewer, Maryland Sea Grant
Experimental Marine Biology and Ecology
Fisheries Bulletin
Bulletin Marine Science
- 2001 Reviewer, Estuarine, Coastal and Shelf Science
NOAA Stallton_Kennedy
Marine Ecology Progress Series
Estuarine, Coastal Shelf Res
- 2002 Reviewer, NOAA Chesapeake Bay Program
Marine Biology

University Service

- 1980 Member, Accreditation Sub-Committee on Student Outcomes.
Consultant on laboratory design for Applied Marine Research Laboratory, Center for Marine Studies.
- 1981 Oceanography Education Committee.
- 1983 Senate Faculty Committee K, University Development and Government Relations.
Campus Legislative Committee.
- 1984 Oceanography Facilities Committee, Chairman.
Oceanography Education Committee.
Applied Marine Research Laboratory Advisory Committee.
- 1985 Oceanography Facilities Committee, Chairman.
Oceanography Education Committee.
Oceanography Curriculum Review Committee.
Oceanography Research Planning Committee.
Applied Marine Research Laboratory Advisory Committee.
- 1986 Oceanography Education Committee.
Oceanography Curriculum Committee.
College of Sciences. Biotechnology Building Committee.
Shop Committee.
- 1987 Oceanography Education Committee.

- College of Sciences, Operations Committee.
- 1988 Oceanography Graduate Program Review Committee.
University Conduct Committee.
- 1989 Faculty Senate Committee I, University Resources and Budget.
- 1990 Faculty Senate Committee F, Tenure and Promotions.
- 1991 Faculty Senate Committee I, University Resources and Budget
Oceanography Admissions Committee
- 1992 Faculty Senate Committee F, Tenure and Promotions
Chairman, Biological Oceanography Search Committee
Member, Oceanography / Physics Building Committee, Oceanography Contact
Responsible for laboratory and classroom design and space allocation.
Oceanography Admissions Committee
- 1993 College of Sciences, Tenure Committee
Faculty Senate Committee F, Tenure and Promotion
Phi Kappa Phi, Graduate Student Selection Committee
Oceanography Admissions Committee
- 1994 Faculty Senate Committee F, Tenure and Promotions
Member, Oceanography / Physics Building Committee, Oceanography Contact
College of Sciences, Tenure Committee
Oceanography Admissions Committee
- 1995 Faculty Senate Committee F, Intercollegiate Athletics Committee
Member, Oceanography / Physics Building Committee, Oceanography Contact
College of Sciences, Tenure Committee
Southeastern Association of Marine Laboratories, Planning Subcommittee on Marine
Labs and Environmental Monitoring
- 1999 Faculty Senate Committee F, Intercollegiate Athletics Committee
University Education Council.
- 2000 University Education Council.
- 2001 Faculty Search Committee
University Education Council.
Department and College Curriculum Committees
University Athletics Committee

- 2002 University Education Council
NCAT Diversity Committee
- 2003 University Education Council
College of Sciences Graduate Committee
- 2004 University Education Council
College of Sciences Graduate
Departmental Facilities Committee, Chair

Community Service

September, 1980. Participant, Virginia Environmental Endowment Fund, Environmental Education Workshop, Richmond, Virginia.

June, 1981. Participant, Chesapeake Bay Information Workshop.

September, 1981. Organizer, ODU Exhibit, Hampton Bay Days.

November, 1981. Organizer, ODU Exhibit, Scope Anniversary.

Summer, 1982. Sponsor, Norfolk, Talented and Gifted Program.

Spring, 1983. ODU Speakers Bureau, Talk to Norfolk Roundtable.

Summer, 1983. Sponsor, Norfolk Talented and Gifted Program.

Summer, 1984. Sponsor, Norfolk Talented and Gifted Program.

ODU "Dialogue" show on "Blue Crabs of the Chesapeake Bay".

Summer, 1985. Interview, "Blue Crab Biology" WHRO FM radio.

TV Commercial "Blue Crab Research" sponsored by Sigma Xi and WHRO in support of basic research.

Fall, 1986. Participant, ODU Exhibit at Norfolk and Portsmouth Sea Food Festivals.

Fall, 1987. Host, WAVY Channel 10, Wednesday's Child Program. Designed to enhance the placement of children in Big Brother, Big Sister Programs.

Fall, 1988. Curriculum Development, Virginia Marine Science Museum.

Summer, 1989. Advisor, Blue crab life history display, Virginia Marine Science Museum.

Summer, 1991. Talk "Blue Crab Fishery in Chesapeake Bay." Southside Lions Club.

Spring, 1992. Sponsor, Virginia Beach Talented and Gifted Program.

Fall, 1992. Sponsor, Virginia Beach Talented and Gifted Program.

Summer, 1993. Talk "Meteorology and the Blue Crab Fishery" American Meteorological Society.

Summer 1995, Interview "A shore bet: Crab Catches and beach Ecology" With Good Reason, State Council of Higher Education and Public Radio.

Spring 1999 Coach for Virginia Beach Catholic High School Blue Crab Bowl Team, Sponsored by CORE, ODU, and VIMS 2nd place finish

Spring 2000 Coach for Virginia Beach Catholic High School Blue Crab Bowl Team, Sponsored by CORE, ODU, and VIMS 2nd place finish

Spring 2001 Coach for Virginia Beach Catholic High School Blue Crab Bowl Team, Sponsored by CORE, ODU, and VIMS. First place finish. Participant in the National Ocean Sciences Bowl in Miami, April; 6th place finish

Spring 2002 Coach for Virginia Beach Catholic High School Blue Crab Bowl Team, Sponsored by CORE, ODU, and VIMS. 2nd place finish

Spring 2003 Coach for Virginia Beach Catholic High School Blue Crab Bowl Team, Sponsored by CORE, ODU, and VIMS. 4th place finish