

Curriculum Vitae



Prof. T. SUBRAMONIAM D.Sc., F. N. A

Senior Scientist

Centre for Climate Change Studies

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ACADEMIC QUALIFICATIONS

- Ph.D. (1970) University of Madras
- D.Sc. (1986) University of Madras

Research Interest

1. Reproductive Physiology of Crustaceans
2. Molecular endocrinology
3. Cryobiology
4. Evolution of Yolk Proteins

Teaching Interest and Experience

- Developmental Biology (Authored 2 Books - Developmental Biology and Molecular Developmental Biology Published by Narosa, New Delhi and Alpha International, England).
- Taught Developmental Biology and Reproductive Biology to M.Sc. students of Madras University for 30 years.

ACADEMIC POSITIONS HELD

Lecturer and Reader. Dept. of Zoology, Univ. Madras, 1973-1990.

- Professor & Head Dept. of Zoology, University of Madras 1990 – 2001
- Dean of Research Programs University of Madras 1995 – 1998
- Professor & Coordinator, Department of Biotechnology, University of Madras 1997 - 2000
- Coordinator, UGC-DRS SAP (Department of Zoology, University of Madras) 1999-2003
- Technical Consultant to National Institute of Ocean Technology, Chennai-1998-2002
- CSIR Emeritus Scientist Department of Zoology, University of Madras 2001- 2006
- INSA Senior Scientist National Institute of Ocean Technology, Chennai 2006- 2011

AWARDS RECEIVED

International

1. Indo-US Fellowship Award - Senior Fulbright Program - 1986-1987 to visit and work at the University of California, Bodega Marine Laboratory.
2. NAGA Award for the best impact making paper on Fishery Sciences for the year 1994, ICLARM, Manila, Philippines- 1995
3. JIRCAS (Japan) Research award for best foreign researcher - Awarded in 2000.

National

1. National Fellowship, University Grants Commission, Govt. India - 1993-1995
2. Elected Fellow of the Indian National Science Academy, New Delhi - 1995
3. Elected Fellow of National Academy of Sciences, Allahabad - 1996
4. Elected Fellow of the Indian Academy of Agricultural Sciences, New Delhi - 1996
5. Elected Fellow of the Tamil Nadu Science Academy - 1996
6. Tamil Nadu State Council for Science and Technology Award for Outstanding Scientist - Biological Sciences-1997
7. Jagadish Chandra Bose Award for Research in Life Sciences '1996' - Awarded in 1998 by University Grants Commission, New Delhi.
8. Chandrakala Hora Memorial Medal - 2002 for contributions to the development of fisheries, aquatic biology -Awarded by Indian National Science Academy (INSA), New Delhi.
9. Professor Harswarup Memorial Lecture Award - 2008 (Awarded by Indian National Science Academy (INSA), New Delhi.) - For life-time contribution in Developmental and Reproductive Biology.

10. Visits Abroad

11. Visited the following countries as visiting scientist/professor, for participating in international conferences/workshops: U.K, U.S.A, Germany, France, Belgium, Sweden, Canada, Japan, Philippines, Singapore etc.

RESEARCH PUBLICATIONS

Original Peer Reviewed Research Publications

1. Subramoniam, T. 1972. Histochemical demonstration of nonchemical esterases in the fat body of the millipede *Spirostreptus astenus*. **Acta Histochem. Jaena**, **47**: 250-253.
2. Subramoniam, T. 1973. Incorporation of ¹⁴C leucine into the fat body of the cockroach, *Periplaneta americana* during oocyte development. **J. Insect Physiol.**, **19**: 2209-2213.
3. Subramoniam, T. and Azariah, J. 1974. On the structure and histochemistry of the cuticle of austraperipatus, *Peripatoides novaezealandiae*. **Acta Histochem. Jaena**, **50**: 75-83.
4. Subramoniam, T. 1974. Protein granulation in the fat body of the millipede: Histochemical characterization and their role in cuticle formation. **Acta Histochem. Jaena**, **51**: 182-187.
5. Subramoniam, T. 1974. A histochemical study of the cuticle of the millipede *Spirostreptus asthenus* (Diplopoda: Myriapoda). **Acta Histochem. Jaena**, **51**: 200-204.
6. Anantharaman, S. and Subramoniam, T. 1975. Oogenesis in *Acanthosentis oligospinus* n.sp., an acanthocephalan parasite of the fish, *Macronus qulio* L. The morphology of the oocyte and distribution of the nucleic acid. **Proc. Indian Nat. Acad. Sci.**, **82B**: 139-145.

7. Anantharaman, S. and Subramoniam, T. 1976. On a microphallid metacercaria occurring in the ovaries of the sand crab, *Emerita asiatica* and *Albunia symnista* on the Madras coast. **Proc. Indian Nat. Acad. Sci., 84B:** 192-199.
8. Subramoniam, T. 1976. RNA synthesis in the ovarian cells of *Periplaneta americana* during vitellogenesis. **Acta Histochem. Jaena, 55:** 104-110.
9. Subramoniam, T. 1977. Aspects of sexual biology of the anomuran crab, *Emerita asiatica*. **Mar. Biol., 43:** 369-377.
10. Subramoniam, T. 1979. Some aspects of the reproductive ecology of a mole crab, *Emerita asiatica* Milne Edwards. **J.Exp. Mar. Biol. Ecol., 36:** 259-268.
11. Subramoniam, T. 1979. Heterosexual rapping in the mole crab, *Emerita asiatica*. **Int. J. Invert. Reprod., 1:** 197-199.
12. Uma, K. and Subramoniam, T. 1979. Histochemical characteristics of spermatophore layers of *Scylla serrata* (Forsk.) **Int. J. Invert. Reprod., 1:** 31-41.
13. Munuswamy, N. and Subramoniam, T. 1980. Electrophoretic investigation on yolk utilization in an isopod *Ligia exotica*. **Roux. Zool. Jb. Physiol., 84:** 417-422.
14. Deecaraman, M. and Subramoniam, T. 1980. Male reproductive tract and accessory gland of a stomatopod, *Squilla holochista*. **Int. J. Invert. Reprod., 2:** 175-188.
15. Das, M.A., Subramoniam, T., Varadarajan, S. and Govindarajulu, P. 1980. Germinal zone activity during the annual breeding cycle in an edible crab, *Portunus pelagicus*. **Proc. Indian Nat. Sci. Acad., 46B:** 287-292.
16. Varadarajan, S. and Subramoniam, T. 1980. Histological changes during vitellogenesis in the ovary of the hermit crab, *Clibanarius clibanarius*. **Proc. Indian Nat. Sci. Acad., 46B:** 645-651.
17. Varadarajan, S. and Subramoniam, T. 1980. Histochemical investigations on vitellogenesis of an anomuran crab, *Clibanarius clibanarius*. **Int. J. Invert. Reprod., 2:** 47-58.
18. Subramoniam, T. 1981. Protandric hermaphroditism in a mole crab, *Emerita asiatica*. **Biol. Bull.,** 161-174.
19. Charles, P.M. and Subramoniam, T. 1982. A comparative study on the oogenesis of two freshwater prawns, *Macrobrachium malcolmsonii* and *Macrobrachium lamarrei*. **J. Reprod. Biol. Comp. Endocrinol., 2:** 80-86.
20. Varadarajan, S. and Subramoniam, T. 1982. Reproduction of the continuously breeding hermit crab, *Clibanarius clibanarius*. **Mar. Ecol. Prog. Ser., 8:** 197-201.
21. Deecaraman, M. and Subramoniam, T. 1982. Sex pheromone in the stomatopod crustacean, *Squilla holochista*. **Proc. Indian Acad. Sci., 9:** 367-373.
22. Munuswamy, N. and Subramoniam, T. 1983. Scanning electron microscope studies on the egg shell of the freshwater fairy shrimps, *Streptocephalus dichotomus* and *Brachinella kugenumaensis* (Branchiopoda: Anostraca). **Cytobios, 37:** 181-186.
23. Deecaraman, M. and Subramoniam, T. 1983. Mating and its effect on female reproductive physiology with special reference to the fate of the male accessory sex gland secretion in the stomatopod, *Squilla holoschista*. **Mar. Biol., 77:** 161-171.
24. Deecaraman, M. and Subramoniam, T. 1983. Histochemistry of the neurosecretory systems in a stomatopod crustacean, *Squilla holoschista*. **Proc. India Acad. Sci., 92B:** 387-398.
25. Deecaraman, M. and Subramoniam, T. 1983. Endocrine regulation of ovarian maturation and cement gland activity in a stomatopod crustacean, *Squilla holoschista*. **Proc. India Acad. Sci., 92B:** 399-408.
26. Deecaraman, M. and Subramoniam, T. 1983. Synchronous development of the ovary and female accessory sex glands of a crustacean *Squilla holoschista*. **Proc. India Acad. Sci., 92B:** 179-184.
27. Paneerselvam, M. and Subramoniam, T. 1983. Neurosecretory types and their activity during reproduction in the anomuran crab, *Albunea symnista* (Crustacea: Albuneidae). **J. Reprod. Biol. Comp. Endocrinol., 3:** 2-10.

28. Subramoniam, T. 1984. Spermatophore formation in two intertidal anomuran crabs, *Emerita asiatica* and *Albunia symnista* (Decapoda: Anomura). **Biol. Bull.**, **166**: 78-95.
29. Munuswamy, N. and Subramoniam, T. 1984. Egg envelopes of *Streptocephalus dichotomus* Baird: A structural and Histochemical study. **Hydrobiologia**, **114**: 17-28.
30. Natarajalingam, K. and Subramoniam, T. 1984. Oogenesis in a millipede, *Spirostreptus asthenus* (Pocock). **Zool.Anz.**, **212**: 229-239.
31. Pillai, C.K. and Subramoniam, T. 1984. Monsoon dependent breeding in a field crab, *Paratelphusa hydrodromus* (Herbst). **Hydrobiologia**, **119**: 7-14.
32. Uma, K. and Subramoniam, T. 1984. A comparative study on the spermatophore formation in *Scylla serrata* (Forsk.) (Decapoda: Brachyura) *Clibanarius longitarsus* (De Haan) (Decapoda: Anomura). **J. Mar. Biol. Assoc. India**, **26**: 103-108.
33. Munuswamy, N. and Subramoniam, T. 1985. Influence of mating on ovarian and shell gland activity in freshwater fairy shrimp, *Streptocephalus dichotomus* (Baird) (Crustacea: Anostraca). **Crustaceana**, **49**: 225-232.
34. Munuswamy, N. and Subramoniam, T. 1985. Oviductal secretion and ovulation in freshwater fairy shrimp *Streptocephalus dichotomus* (Baird) (Crustacea: Anostraca). **Crustaceana**, **49**: 112-116.
35. Ezhilarasi, S. and Subramoniam, T. 1985. Esterase activity in *Scylla serrata* during ovarian maturation. **J. Exp. Mar. Biol. Ecol.**, **83**: 1-12.
36. Munuswamy, N., Subramoniam, T. and Mura, G. 1985. Ootaxonomic findings on anostracan eggs: A scanning electron microscopic study. **Cytobios**, **42**: 92-97.
37. Pillai, C.K. and Subramoniam, T. 1985. Yolk utilisation as an adaptive strategy of terrestrialization in the freshwater crab, *Paratelphusa hydrodromus* (Herbst). **Physiol. Zool.**, **58**: 445-457.
38. Radha, T. and Subramoniam, T. 1985. Origin and nature of the spermatophoric mass of the spiny lobster, *Panulirus homarus*. **Mar. Biol.**, **86**: 13-19.
39. Munuswamy, N. and Subramoniam, T. 1985. Neuroendocrine activity during ovarian maturation in a freshwater fairy shrimp, *Streptocephalus dichotomus* (Baird) (Crustacea: Anostraca). **Crustaceana**, **52**: 303-313.
40. Subramoniam, T. and Paneerselvam, M. 1985. Semiannual breeding pattern in an intertidal sand crab, *Albunia symnista* (= *symnista*) (L.) of the Madras coast. **Indian J. Mar. Sci.**, **14**: 226-227.
41. Munuswamy, N. and Subramoniam, T. 1985. Oogenesis and shell gland activity in freshwater fairy shrimp, *Streptocephalus dichotomus* Baird (Crustacea: Anostraca). **Cytobios**, **44**: 137-147.
42. Munuswamy, N. and Subramoniam, T. 1986. Histochemical studies on the vitellogenesis in a fairy shrimp, *Streptocephalus dichotomus* Baird (Crustacea: Anostraca). **Proc. Indian Acad. Sci.**, **95**: 171-179.
43. Ezhilarasi, S. and Subramoniam, T. 1986. Serological studies on the egg maturation in the edible crab, *Scylla serrata*. **J. Singapore Natl. Acad. Sci.**, **15**: 21-25.
44. Natarajalingam, K. and Subramoniam, T. 1987. Influence of light on the endocrine system and ovarian activity in two ocypodid crabs, *Ocyroda platytarsis* and *O. macrocera*. **Mar. Ecol. Prog. Ser.**, **36**: 43-53.
45. Jeyalectumi, C. and Subramoniam, T. 1987. Biochemical composition of seminal secretions with special reference to LDH activity in the reproductive tissues of the field crab, *Paratelphusa hydrodromus* (Herbst). **Exp. Biol.**, **46**: 231-236.
46. Munuswamy, N. and Subramoniam, T. 1987. Sexual and developmental differences in the protein pattern of haemolymph and body tissues of *Streptocephalus dichotomus* Baird (Crustacea: Anostraca). **Hydrobiologia**, **150**: 277-283.

47. Sasikala, S.L. and Subramoniam, T. 1987. On the occurrence of acid mucopolysaccharides in the spermatophores of two marine penaeid prawns, *Penaeus indicus* (Milne Edwards) and *Metapenaeus monoceros* (Fabricius) (Crustacea:Macrura). **J. Exp. Mar. Biol. Ecol.**, **113**: 145-153.
48. Charles, P.M. and Subramoniam, T. 1988. Monsoon influence on the continuous breeding of a tropical freshwater prawn *Macrobrachium lamerrei*. **J. Reprod. Biol. Comp. Endocrinol.**, **7**: 81-88.
49. Jeyalectumie, C. and Subramoniam, T. 1989. Cryopreservation of the spermatophores of the edible crab, *Scylla serrata*. **Biol. Bull.**, **177**: 247-253.
50. Md.Kaleemur Rahman and Subramoniam, T. 1989. Molting and its control in the sand lobster *Thenus orientalis*. **J.Exp. Mar. Biol. Ecol.**, **128**: 105-115.
51. Jeyalectumie, C. and Subramoniam, T. 1991. Biochemistry of seminal secretions of the crab *Scylla serrata* with special reference to sperm metabolism and storage in the female. **Mol. Reprod. Develop.**, **30**: 45-55.
52. Prasath, E.B. and Subramoniam, T. 1991. Vitellogenin and vitellin of a millipede *Spirostreptus asthenes*: Occurrence, isolation and partial characterisation. **Insect Biochem.**, **21**: 865-870.
53. Kaur, V.R.D. and Subramoniam, T. 1992. Carotenoid metabolism during embryonic development of a marine crab, *Emerita asiatica*. **Invert. Reprod. Develop.**, **21**: 99-106.
54. Tirumalai, R. and Subramoniam, T. 1992. Purification and characterisation of vitellogenin and lipovitellins of the sand crab *Emerita asiatica*: Molecular aspects of crab yolk proteins. **Mol. Reprod. Develop.**, **33**:16-26.
55. Subramoniam, T. 1992. Spermatophore transfer and mechanism of fertilisation in decapod crustaceans. **Biol. Edu.**, **Jan-Feb, 1992**:58-67.
56. Subramoniam, T. 1994. Cryopreservation of crustacean gametes and embryos. **Proc. Indian Nat l. Sci. Acad.**, **60B**:29-36.
57. Subramoniam, T. 1995. Light and electron microscopic studies on the seminal secretion and vas deferens epithelium of the shrimp *Sicyonia ingentis*. **J. Biosci.**, **20**: 691-706.
58. Anilkumar, G., Sudha, K., Anitha, E. and Subramoniam, T. 1996. Aspects of sperm metabolism in the spermatheca of the brachyuran crab, *Metapograpsus messor* (Forskal). **J. Crust. Biol.**, **16**: 331-335.
59. Newton, S.S. and Subramoniam, T. 1996. Cryoprotectant toxicity in penaeid prawn embryos. **Cryobiology**, **33**:172-177.
60. Thiyagarajan, V., Venugopalan, V.P., Subramoniam, T. and Nair, K.V.K. 1996. Laboratory rearing of barnacle larvae (*Balanus reticulatus*) using *Chaetoceros wigami* as food. **Ind. J. Mar. Sci.**, **25**: 365-367.
61. Thiyagarajan, V., Venugopalan, V.P., Nair, K.V.K. and Subramoniam, T. 1997. Description of the naupliar stage of *Megabalanus tintinabulum* (Cirripedia, Balanidae). **J. Crust. Biol.**, **17**: 332-342.
62. Thiyagarajan, V., Venugopalan, V.P., Nair, K.V.K. and Subramoniam, T. 1997. Larval description of *Balanus reticulatus* Utinomi (Cirripedia, Balanidae) reared in the laboratory. **J. Exp. Mar. Biol. Ecol.**, **209**: 215-231.
63. Thiyagarajan, V., Venugopalan, V.P., Nair, K.V.K. and Subramoniam, T. 1997. Macrofouling in the cooling conduits of Madras Atomic Power Station. **Indian J. Mar. Sci.**, **26**: 305-308.
64. Bhavanishankar, S. and Subramoniam, T. 1997. Cryopreservation of the spermatozoa of the edible mud crab *Scylla serrata*. **J. Exp. Zool.**, **277**: 327-336.
65. Jayasankar, V. and Subramoniam, T. 1997. Proteolytic activity in the seminal plasma of the mud crab, *Scylla serrate* (Forskal). **Comp. Biochem. Physiol.**, **116B**: 347-352.
66. Rani, K. and Subramoniam, T. 1997. Vitellogenesis in mud crab, *Scylla serrata* - An *in vivo* isotope study. **J. Crust.Biol.**, **17**: 659-665.
67. Arun, R. and Subramoniam, T. 1997. Effect of freezing rates on the penaeid prawn larvae - A parameter analysis. **CryoLett.**, **18**: 359-368.

68. Subramoniam, T., Reichwein, B., Dircksen, H. and Keller, R. 1998. The isolation and characterisation of a crustacean hyperglycemic hormone in the eyestalk of the shrimp *Penaeus indicus*. **Aquaculture**, **162**: 99-111.
69. Anilkumar, G., Sudha, K. and Subramoniam, T. 1999. Spermatophore transfer and sperm structure in the brachyuran crab *Metapograpus messor* (Decapoda: Grapsidae). **J. Crust. Biol.**, **19**: 170-179.
70. Subramoniam, T., Tirumalai, T., Gunamalai, V. and Hoffmann, K.H. 1999. Embryonic ecdysteroids in a mole crab, *Emerita asiatica* (Milne Edwards). **J. Biosci.**, **24**: 101-106.
71. Vidya Jayasankar and Subramoniam, T. 1999. Antibacterial activity of the seminal plasma of the mud crab, *Scylla serrata*. **J. Exp. Mar. Biol. Ecol.**, **236**: 253-259.
72. Sriyuthamurthy, P., Venugopalan, V.P., Nair, K.V.K. and T. Subramoniam. 1999. Chemical cues inducing settlement and metamorphosis in the fouling oyster *Crassostrea madrasensis*. **Journal of Indian Institute of Sciences (Indian Institute of Sciences, Bangalore)**, **79**: 513-526.
73. Thiyagarajan, V., Venugopalan, V. P., Nair, K.V.K. and T. Subramoniam. 1999. Fouling barnacles: Larval development, settlement behaviour and control technology. **Journal of Indian Institute of Sciences (Indian Institute of Sciences, Bangalore)**, **79**: 399-414.
74. Thiyagarajan, V., Murthy, P.S., Nanchiarya, Y. V., Venugopalan, V.P., Nair, K.V.K. and Subramoniam, T. 2000. Influence of biofilms on *Balanus reticulatus* settlement. **Biofilm 4** (1)(On line journal).
75. Thiyagarajan, V., Nancharya, Y. V., Venugopalan, V.P., Nair, K.V.K. and Subramoniam, T. 2000. Relative tolerance of cirripede larval stages to acute thermal shock: A laboratory study. **J. Thermal Biol.** **25**, 451-457.
76. Yang, W-J., Ohira, T., Tsutsui, N., Subramoniam, T., Huang, D. T. T., Aida, K. and Wilder, M., 2000. Determination of amino acid sequence and site of mRNA expression of four vitellins in the giant freshwater prawn, *Macrobrachium rosenbergii*. **Journal of Experimental Zoology (Wiley-Liss, Inc., USA)** **287**, 413-422.
77. Tirumalai, R and T. Subramoniam 2001. Carbohydrate components of lipovitellin of the sand crab *Emerita asiatica*. **Molecular Development and Reproduction (Wiley-Liss, Inc., USA)** **58**, 54-62.
78. Warriar, S.R., Tirumalai, R. and Subramoniam, T. (2001). Occurrence of vertebrate steroids, estradiol 17 β and progesterone in the reproducing females of the mud crab *Scylla serrata*. **Comp. Biochem. Physiol. (Elsevier)** **130(A)**: 283-294.
79. Prakash, S.G., Keller, R. and Subramoniam, T. (2001). Development of vitellogenin - ELISA, an in vivo bioassay, and identification of two vitellogenesis-inhibiting hormones of the tiger shrimp *Penaeus monodon*. **Mar. Biotech.** **3**: 561-571.
80. Okuno, A., Yang, W., Jayashankar, V., Sakanaka, H.S., Huong, S.J., Atmomarsono, M., Subramoniam, T., Tsutsui, N., Ohira, T., Kawazoe, I., Aida, K. and Wilder, M.N. (2002). Deduced primary structure of vitellogenin in the giant freshwater prawn, *Macrobrachium rosenbergii*, and yolk processing during ovarian maturation. **J. Exp. Zool. (Wiley-Liss, Inc.)** **292**: 417-429.
81. Warriar, S. and Subramoniam, T. (2002). Receptor mediated yolk protein uptake in the crab *Scylla serrata*: Crustacean vitellogenin receptor recognises related mammalian serum lipoproteins. **Mol. Reprod. Dev.** **61**: 536-548.
82. Gunamalai, V. and Subramoniam, T. (2002). Synchronisation of molting and oogenic cycles in a continuously breeding population of the sand crab *Emerita asiatica* on the Madras coast, South India. **J. Crust. Biol. (Allen Press Inc. USA)** **22(2)** : 398-410
83. Thiyagarajan, V., K.V.K. Nair, T. Subramoniam and V.P. Venugopalan (2002). Larval settlement behaviour of the barnacle *Balanus reticulatus* in the laboratory. **J. Mar. Biol. Ass. U.K.** **82**: 579-582.
84. Warriar, S. and Subramoniam, T. (2003). Instability of crab vitellogenin and its immunological relatedness with mammalian atherogenic lipoproteins. **Mol. Reprod. Dev.** **64**: 329-340.

85. V. Gunamalai, R. Kirubakaran and T. Subramoniam (2003). Sequestration of ecdysteroid hormone into the ovary of the mole crab *Emerita asiatica* (Milne Edwards). **Curr. Sci.** 85 (4) 493-496.
86. Gunamalai, V., Kirubakaran, R. and Subramoniam, T. 2004. Hormonal co-ordination of molting and female reproduction by ecdysteroids in the mole crab *Emerita asiatica* (Milne Edwards). **Gen. Comp. Endocrinol.** 138: 128-138.
87. T. Subramoniam 2004. Hormonal control of female reproduction and moulting in Decapod Crustaceans. **J. Endocrinol Reprod** 8 (1) (2):1-12.
88. V. Gunamalai, R. Kirubakaran and T. Subramoniam, 2006. Vertebrate steroids and the control of female reproduction in two decapod crustaceans, *Emerita asiatica* and *Macrobrachium rosenbergii*. **Curr. Sci.** 90, 1- 10.
89. Sunil Israel, T. Senthil Murugan, V.P. Venugopalan, T. Subramoniam, N. Munuswamy and G. Van der Velde 2006. Larval development in sand crab *Emerita emerita* (L., 1767) (Anomura, Hippidae) reared in the laboratory. **Crustaceana** 70 (4):441-458.
90. Subramoniam, T. (2007) Embryonic nutrition and yolk utilization in the sand crab *Emerita asiatica*. **J. Endocrinol Reprod.** 11: 1-14.
91. M. Krishnan, P. Muthumeenakshi, C. Bharathiraja, Sudha Warriar and T. Subramoniam (2008) A comparative study on vitellogenin receptor of a lepidopteran insect (*Spodoptera litura*) and a decapod crustacean (*Scylla serrata*): Phylogenetic implication and co-evolution with vitellogenins. **J. Endocrinol Reprod.** Vol 12: 1: 13-23.
92. Rajamohan A. and Subramoniam T. (2009) Characterization of internal freezing in penaeid shrimp larva. (Cryobiology accepted for publication).
93. Santhanakumar, J., Mohanraju, R., Kirubakaran, R. and T. Subramoniam. 2014. Mate guarding behaviour in the supralittoral isopod *Ligia dentipes* (Oniscidea) from the Andaman and Nicobar Islands. **Invertebrate Reproduction and Development.** 58(2): 128-137.
94. Prakash, S., T. T. Ajith Kumar and T. Subramoniam. 2015. Notes on some Indo-Pacific caridean shrimps (Decapoda: Caridea: Palaemonidae and Gnathophyllidae), particularly from India. **Zootaxa.** 3914 (4): 456-466.
95. Prakash, S., T. T. Ajith Kumar, R. Bauer, M. Thiel and T. Subramoniam. Reproductive morphology and mating behavior in the coral reef shrimp *Rhynchocinetes durbanensis* Gordon, 1936 (Decapoda: Caridea: Rhynchocinetidae) in India. **Journal of Marine Biological Association, UK** (Accepted).
96. Merlin, J., Mohanlal, D. L., C. P. Balasubramanian, Sherly Tomy, T. Subramoniam, Shyama Daya, J. Ravichandran, P. and A.G. Ponnian. Induction of vitellogenesis and reproductive maturation in tiger shrimp *Penaeus monodon* by 17β estradiol and 17α hydroxyl progesterone: in vivo and in vitro studies. **Invertebrate Reproduction and Development** (under review).

Short communications

1. Subramoniam, T. 1971. Peroxidase uptake by the fatbody of *Spirostreptus asthenes* (Diplopoda: Myriapoda). **Experientia**, 27: 1926.
2. Sannasi, A. and Subramoniam, T. 1972. Hormonal rupture of larval diapause in the tick, *Rhipicephalus sanguinous* (Lat.). **Experientia**, 28: 666.
3. Subramoniam, T. 1972. Studies on the fatbodies of millipedes. 1. Histological and histochemical features of the fatbody of the millipede, *Spirostreptus asthenes* (Pocock). **Zool. Anz.**, 189: 200-208.
4. Anantharaman, S. and Subramoniam, T. 1980. A tetraphyllidean larva (Genus *Phyllobothrium*?) from the ovaries of the sand crabs, *Albunea symnista* and *Emerita asiatica* off the Madras coast. **Curr. Sci.**, 49: 449-450.

5. Subramoniam, T. and Newton, S.S. 1993. Cryopreservation of embryos of the penaeid prawn *Penaeus indicus*. **Curr. Sci.**, **65**: 176-177.
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