

Bibliography

Bibliography

- Achituv Y, Blackstock J, Barnes M, Barnes H (1980) Some biochemical constituents of stage I and II nauplii of *Balanus balanoides* (L) and the effect of anoxia on stage I. J Exp Mar Biol Ecol 42: 1-12
- Anger K, Dawirs RR (1981) Influence of starvation on the larval development of *Hyas areaneus* larvae (Decapoda: Majidae). Helgolander Meeresunters 38:21-23
- Anger K, Dawirs RR, Anger V, Goy JW, Costlow JD (1981a) Starvation resistance in the first stage zoeae of brachyuran crabs in relation to temperature. J Crustacean Biol 1: 518-525
- Anger K, Hirche HJ (1990) Nucleic acids and growth of larval and early juvenile spider crab *Hyas araneus*. Mar Biol 105: 403-411
- Anil AC (1991) Studies on macrofouling ecology of cirripedes in Hamana Bay (Japan), D. Agr. Thesis, Faculty of Agriculture, University of Tokyo, Tokyo, Japan
- Anil AC (1986) Studies on marine biofouling in the Zuari estuary (Goa) west coast of India. Ph.D. thesis, Karnatak University, India
- Anil AC, Chiba K, Okamoto K, Kurokura H (1995) Influence of temperature and salinity on larval development of *Balanus amphitrite*: implications in fouling ecology. Mar Ecol Prog Ser 118: 159-166
- Anil AC, Kurian J (1996) Influence of food concentration, temperature and salinity on the larval development of *Balanus amphitrite*. Mar Biol 127: 115-124
- Anil AC, Dattesh D (1997) Starvation threshold of *Balanus amphitrite* larvae in relation to temperature. In: Emerging non-metallic materials for the marine environment. Proceedings of US-Pacific Rim workshop, Hawaii, USA, section P, pp 12-23
- Anil AC, Khandeparker RDS (1998) Influence of bacterial exopolymers, conspecific adult extract and salinity on the cyprid metamorphosis of *Balanus amphitrite* (Cirripedia: Thoracica). Mar Ecol 19(4): 279-292
- Anil AC, Desai D, Khandeparker L (2001) Larval development and metamorphosis in *Balanus amphitrite* Darwin (Cirripedia: Thoracica): significance of food concentration, temperature and nucleic acids. J Exp Mar Biol Ecol 263(2): 125-141
- Banse K (1977) Determining the carbon-to-chlorophyll ratio of natural phytoplankton. Mar Biol 41: 199-212

- Barnes H, Crisp DJ (1956) Evidence of self-fertilization in certain species of barnacles. *J Mar Biol Ass U K* 35:631-639
- Barnes H (1957) Process of restoration and synchronization in marine ecology. The spring diatom increase and the spawning of the common barnacle *Balanus amphitrite* (L.). *Annee Biol* 33: 67-85
- Barnes H, Barnes M (1958) The rate of development of *Balanus balanoides* (L.) larvae. *Limnol Oceanogr* 3: 29-32
- Barnes H (1962a) So-called anedysis in *Balanus balanoides* the effect of breeding upon the growth of the calcareous shell of some common barnacles. *Limnol Oceanogr* 7:462-473
- Barnes H (1962b) Note on variations in the release of nauplii of *Semibalanus balanoides* with special reference to the spring diatom out burst. *Crustaceana* 4:118-122
- Barnes H (1970) A review of some factors affecting settlement and adhesion in the cyprids of some common barnacles. In manly RS (ed) *Adhesion in Biological systems*. Academic Press, New York. pp 89-111
- Barnes H, Barnes M (1967) The effect of starvation and feeding on the time of production of egg masses in the boreo-arctic cirripede, *Balanus balanoides* (L.). *J Exp Mar Biol Ecol* 1:1-6
- Barnes H, Barnes M (1968) Egg numbers, metabolic efficiency of egg production and fecundity: local and regional variations in a number of common cirripedes. *J Exp Mar Biol Ecol* 2: 135-153
- Barnes H (1972) Fundamental aspects of the problem of antifouling. *Proc. 3rd International Congress on Marine Corrosion & Fouling*. pp 640-648
- Barnes H, Klepal W (1972) Phototaxis in stage I nauplius larvae of two cirripedes. *J Exp Mar Biol Ecol* 10: 267-273
- Barnes H, Barnes M (1975) The general biology of *Verruca stroemia* (O F Muller). V. Effect of feeding, temperature and light regime on breeding and moulting cycles. *J Exp Mar Biol Ecol* 19:227-232
- Barnes H, Barnes M, Klepal W (1977) Studies on the reproduction of cirripedes I. Introduction: copulation, release of oocytes, and formation of the egg lamellae. *J Exp Mar Biol Ecol* 27: 195-218
- Barnes H (1989) Egg production in cirripedes. *Oceanogr. Mar Biol Annu Rev.* 27:91-166
- Bhaud M (1988) La biologie chez les inverbres marins: une question d'actualite (Notes de lecture et commentaires). *Vie Milieu* 38(1): 19-24

- Bhimachar BS, George PC (1950) Abrupt set-backs to fishery of the Malabar and Kanara coasts and 'Red water' phenomenon and their probable cause. Proc. Indian Academy of Sci. 13: 339-350
- Bigford TE (1978) Effect of several diets on survival, development time and growth of laboratory reared spider crab *Libinia emarginata* larvae. Fish Bull USA, pp 76-59
- Boidron-Metairon IF (1995) Larval nutrition. In: Larry McEdward (ed) Ecology of marine invertebrates. CRC Press, Washington DC. pp 225
- Bourget E (1977) Shell structure in sessile barnacles. Naturaliste can. 104: 281-323
- Bousfield EL (1955) Ecological control of the occurrence of barnacles in the Miramichi estuary. Bull National Mus Can 137: 1-69
- Buckley LJ (1980) Changes in ribonucleic acid and protein content during oogenesis in winter flounder, *Pseudopleuronectes americanus* and the effect of starvation. Fish Bull 77: 703-708
- Bulow FJ (1970) RNA-DNA ratio as indicators of recent growth rates of a fish. J Fish Res Bd Can 27: 2343-2349
- Charnov EL (1987) Sexuality and hermaphroditism in barnacles: a natural selection approach. In: Southward AJ (ed) Crustacean issues 5. Barnacle biology. AA Balkema, Rotterdam, pp 89-104
- Clare AS, Freet RK, McClary M Jr (1994) On the antennular secretions of the cyprid of *Balanus amphitrite*, and its role as a settlement pheromone. J Mar Biol Ass U K 74: 243-250
- Clegg DL (1955) Reproduction in the cirripedia with special reference to *Balanus balanoides*. M. Sc. Thesis, Univ. of Wales
- Clemmesen C (1987) Laboratory studies on RNA: DNA ratio of starved and fed herring (*Clupea harengus*) and turbot (*Scophthalmus maximus*) larvae. J Cons Int Explor Mar 43: 122-128
- Clemmesen C (1988) A RNA and DNA fluorescence technique to evaluate the nutritional condition of individual marine fish larvae. Meeresforsch 32: 134-143
- Clemmesen C (1993) Improvements in the fluorimetric determination of the RNA and DNA content of individual marine fish larvae. Mar Ecol Prog Ser 100: 177-183
- Clemmesen C (1996) Importance and limits of RNA/DNA ratios as a measure of nutritional condition in fish larvae. In Proceedings of International workshop on Survival strategies in early life stages of Marine Resources. Yokohama, Japan, pp 67-82

- Connell JH (1961a) Effects of competition, predation by *Thais lapillus* and other factors on natural population of the barnacle *Balanus balanoides*. Ecological Monographs 31: 61- 104
- Connell JH (1961b) The influence of interspecific competition and other factors on the distribution of the barnacle *Chthamalus stellatus*. Ecology 42: 701-723
- Connell JH (1985) The consequences of variation in initial settlement vs. post-settlement mortality in rocky intertidal communities. J Exp Mar Biol Ecol 93: 11-45
- Crisp DJ (1954) The breeding of *Balanus porcatas* (da Costa). J Mar Biol Ass U K 33: 473-494
- Crisp DJ, Davies PA (1955) Observations in vivo on the breeding of *Elminius modestus* grown on glass slides. J Mar Biol Assoc UK 34: 357-380
- Crisp DJ, Patel B (1958) Relation between breeding and ecdysis in cirripedes. Nature Lond 181: 1078-1079
- Crisp DJ (1959) The rate of development of *Balanus balanoides* (L.) embryos in vitro. J Anim Ecol 28: 119-132
- Crisp DJ, Patel B (1961) The interaction between breeding and growth rate in the barnacle *Elminius modestus* Darwin. Limnol Oceanogr 6: 105-115
- Crisp DJ (1962) The planktonic stages of the cirripedia *Balanus balanoides* (L) and *Balanus balanus* (L) from north temperate waters, Crustaceana 3: 207-221
- Crisp DJ, Costlow JD Jr (1963) The tolerance of developing embryos to salinity and temperature. Oikos 14: 22-34
- Crisp DJ, Meadows (1962) The chemical basis of gregariousness in cirripedes. Proc R Soc Lond B 156: 500-520
- Crisp DJ, Meadows PS (1963) Adsorbed layers; the stimulus to settlement in barnacles. Proc R Soc London 158: 364-387
- Crisp DJ, Ritz DA (1973) Responses of cirripede larvae to light. I Experiments with white light. Mar Biol (Berlin) 23: 327-335
- Crisp DJ (1974) Factors influencing the settlement of marine invertebrate larvae. In Chemoreception in marine organisms. PT Grant, AN Mackie (eds.) Academic Press, London. pp 177-265
- Crisp DJ (1976) The role of pelagic larva. In: PS Davies (ed) Perspectives in Experimental biology. Pergamon New York, pp 145-155

- Crisp DJ (1983) *Chelonobia patula* (Ranzani), a pointer to the evolution of the complemental male. *Mar Biol Lett* 4: 281-294
- Crisp DJ (1984) Overview of research on marine invertebrate larvae, 1940-1980. In Costlow JD, Tipper RC (eds) *Marine Biodeterioration: and interdisciplinary study*. US naval Institute. Annapolis MD. pp 103-126
- Crisp DJ, Walker G, Young GA, Yule AB (1985) Adhesion and substrate choice in mussels and barnacles. *J Coll Interface Sci* 104: 40-50
- Crisp DJ (1986) In, *Indian Ocean, Biology of benthic marine organisms*, edited by Thompson MF et al., AA Balkema, Rotterdam, pp 69-84
- Crisp DJ (1988) Reduced discrimination of laboratory-reared cyprids of the barnacle *Balanus amphitrite amphitrite* Darwin, Crustacea Cirripedia, with a description of a common abnormality. In Thompson, MF, Sarojini R, Nagabhushanam R (eds.), *Marine biodeterioration* ;Oxford & IBH Publ. Co. New Delhi. pp 409-432
- Dagg MJ, Littlepage JL (1972) Relationship between growth rate and RNA, DNA, Protein and dry weight in *Artemia salina* and *Euchaeta elongata*. *Mar Biol* 17: 162-170
- Daniel A (1955) The cirripedia of the Madras coast. *Bull Madras Govt Mus n. s. Nat Hist Soc* 6 (2): 1-40
- Daniel A (1958) The development and metamorphosis of three species of sessile barnacles. *J Madras Univ* 28: 23-47
- *Darwin C (1851) A monograph on the fossil Lepadidae; or pedunculated cirripedes of Great Britain, London: Palaeontographical Soc.
- *Darwin C (1854) A monograph on the sub-class Cirripedia. *Tr Zool Soc Lond* 22: 133-137
- Dattesh D, Anil AC (2000) Influence of temperature on the starvation threshold of nauplii of barnacle *Balanus amphitrite* (Cirripedia: Thoracica). *Ind J Mar Sci* 29: 69-72
- Dayton PK (1971) Competition, disturbance and community organization: the provision and subsequent utilization of space in a rocky intertidal community. *Ecol Monogr* 41: 351-389
- Dawirs RR (1984) Influence of starvation on larval development of *Carcinus maenas* L (Decapoda: Portunidae) *J Exp Mar Biol Ecol* 80: 47-66
- Daniel A (1954) The seasonal variation and succession of the fouling communities in the Madras harbour waters. *J Madras Univ* 24(2): 189-212

- Denley EJ, Underwood AJ (1979) Experiments on factors influencing settlement, survival and growth in two species of barnacle in New South Wales. *J Exp Mar Biol Ecol* 36: 269-294
- Denny MW (1987) life in the maelstrom: The biomechanics of wave-swept rocky shores. *Trends Ecol Evol* 2: 61-66
- Devessy VP (1983) Plankton ecology of some estuarine and marine regions of the west coast of India. Ph D thesis, Univ of Kerala, India.
- Devessy VP, Goes JI (1989) Seasonal patterns of phytoplankton biomass and productivity in a tropical estuarine complex (west coast of India). *Proc Indian Acad Sci (Plant Sci)* 99 (5): 485-501
- DeWolf P (1973) Ecological observations on the mechanisms of dispersal of barnacle larvae during planktonic life and settling. *Neth J Sea Res* 6: 1-129
- Dortch Q, Roberts TL, Clayton JR, Ahmed SI (1983) RNA/DNA ratios and DNA concentrations as indicators of growth rate in planktonic marine organisms. *Mar Ecol Prog Ser* 13: 61-71
- Efford IE (1970) Recruitment of sedentary marine populations as exemplified by the sand crab, *Emerita analoga* (Decapoda: Hippidae). *Crustaceana* 18: 293-308
- El-Komi MM, Kajihara T (1991) Breeding and moulting of barnacles under rearing conditions. *Mar Biol* 108: 83-89
- Fenaux L, Cellario C, Rassoulzadegan F (1988) Sensitivity of different morphological stages of the larva of *Paracentrotus lividus* (Lamarck) to quantity and quality of food In: Burke D, Mladenov PV, Lambert P, Parsley RL (eds.) *Echinoderm Biology*. A A Balkema, Rotterdam, Netherlands, pp 259-266
- Fernando SA (1978) Studies on the biology of barnacles from Porto Novo region. Ph. D. thesis submitted to the Annamalai University
- Fernando SA (1990) Systematic status of some fouling barnacles of Indian coastal waters. Marine Biofouling and Power plants. In Proceedings of the specialists meeting on Marine Biodeterioration with reference to power plant cooling systems held at IGCAR, Kalpakkam on 26-28 April, 1989. Nair KVK, Venugopalan VP (eds.). pp 240-250
- Flowerdew MW (1985) Indices of genetic identity and distance in three taxa within the *Balanus amphitrite* Darwin complex (Cirripedia, Thoracica). *Crustaceana* 49 (1): 7-15
- Foster BA (1987) Barnacle ecology and adaptation. In *Barnacle Biology; Crustacean Issues* 5, Schram FR (ed). AA Balkema, Rotterdam.

- Franks PJS (1992) Phytoplankton blooms at fronts: patterns, scales and physical forcing mechanisms. *Aquat Sci* 6(3): 121-137
- Gopinathan (1974) Seasonal abundance of phytoplankton in the Cochin backwater. *J Mar Biol Assoc India* 14: 568-577
- Harding JP (1962) Darwin's type specimens of varieties of *Balanus amphitrite*. *Bulletin of the British Museum (Natural History)* 9(7): 274-296
- Harlin MM, Lindebergh JM (1977) Selection of substratum by seaweeds: optimal surface relief. *Mar Biol* 40: 33-40
- Harmes J (1986) Effects of temperature and salinity on larval development of *Eliminius modestus* (Crustacea, Cirripedia) from Helgoland (North sea) and New Zealand. *Helgolander Meeresunters* 40 : 355-376
- Henry DP and McLaughlin PA (1975) The barnacles of the *Balanus amphitrite complex* (Cirripedia, Thoracica). *Zoologische Verhandelingen Leiden* 141: 1-254
- Hines AH (1978) Reproduction in three species of intertidal barnacles from Central California. *Biol Bull Mar Biol Lab, Woods Hole* 154: 262-281
- Hirano R (1962) Mass rearing of barnacle larvae. *Bull Mar Biol Stn Asamushi* 11(2): 77-80
- His E, Seaman MNL (1992) Effects of temporary starvation on the survival, and on subsequent feeding and growth, of oyster (*Cressostrea gigas*) larvae. *Mar Biol* 114: 277-279
- Hodgson CA, Bourne N (1988) Effect of temperature on larval development of the spiny scallop. *Chlamys hastata* Sowerby, with a note on metamorphosis. *J Shell-Fish Res* 7: 349-357
- Holm ER (1990) Attachment behavior in the barnacle *Balanus amphitrite amphitrite* (Darwin): Genetic and environmental effects. *J Exp Mar Biol Ecol* 135 (2): 85-98
- Hurley AC (1973) Fecundity of the acorn barnacle *Balanus pacificus* pilsbry: A fugitive species. *Limnol Oceanogr* 18 (3): 386-393
- Iwaki T (1981) Reproductive ecology of some common species of barnacles in Japan. *Mar Fouling Tokyo* 3(1): 61-70
- *Iyengar S, Gopalkrishnan V, Kelkar VM (1957) Studies on marine fouling organism in Bombay Harbor. *Def Sci Journal* 7: 123-139
- Jenkins SR, Aberg P, Cervin G, Coleman RA, Delany J, Della SP, Hawkins SJ, LaCroix E, Myers AA, Lindegarth M, Power AM, Roberts MF, Hartnoll RG (2000) Spatial and temporal variation in settlement and recruitment of the

- intertidal barnacle *Semibalanus balanoides* (L.) (Crustacea: Cirripedia) over a European scale. *J Exp Mar Biol Ecol* 243: 209-225
- Jenkins SR, Aberg P, Cervin G, Coleman RA, Delany J, Hawkins SJ, Hyder K, Myers AA, Paula J, Power AM, Range P, Hartnoll RG (2001) Population dynamics of the intertidal barnacle *Semibalanus balanoides* at three European locations: spatial scales of variability. *Mar Ecol Prog Ser* 217: 207-217
- Jian-Wen Q, Pei-Yuan Q (1997) Effects of food availability, larval source and culture method on larval development of *Balanus amphitrite amphitrite* Darwin: implications for experimental design. *J Exp Mar Biol Ecol* 217: 47-61
- Jürss K, Bittorf Th, Vökler Th (1986) Influence of salinity and food deprivation on growth, RNA/DNA ratio and certain enzyme activities in rainbow trout (*Salmo gardneri* Richardson). *Comp Biochem Physiol* 83B: 425-433.
- Jürss K, Bittorf Th, Vökler Th, Wacke R (1987) Effects of temperature, food deprivation and salinity on growth, RNA/DNA ratio and certain enzyme activities in rainbow trout (*Salmo gardneri* Richardson). *Comp Biochem Physiol* 87B: 241-254
- Kado R (1991) Effect of light on the larval development of *Balanus amphitrite* Darwin (Cirripedia). *Bull Jap Sci Fish (Nippon Suisan Gakkaishi)* 51(10): 1821-1825
- Karande AA (1965) On cirripede crustaceans (barnacles) an important fouling group in Bombay waters. *Proc Symp Crust (Ser 4)* 1245-1252
- Karande AA, Palekar VC (1966) The sessile barnacles (Cirripedia) of the Bombay coast. *J Bombay Nat Hist Soc* 63(1): 139-151
- Karande AA (1967) On cirripede crustaceans (barnacles) an important fouling group in Bombay waters. *Proc Symp Crust Ernakulum Cochin (Ser 4)* 1942-1952 (Mar Biol Am India)
- Karande AA (1973) Larval development of *Balanus amphitrite* Darwin reared in the laboratory. *Proc Indian Acad Sci* 77: 56-63
- Karande AA (1974) *Balanus variegatus*, the laboratory reared larvae compared with *Balanus amphitrite amphitrite* (Cirripedia). *Crustaceana* 26: 56-63
- Karande AA (1999) Larval development of Indian barnacles. In Thompson MF, Nagabhushanam R (eds.) BARNACLES The Biofoulers. Regency Publications, New Delhi, India
- Knowlton RE (1974) Larval developmental process and controlling factors in decapod crustacea, with emphasis on caridea. *Thalassia Jugoslavia* 10: 139-158

- Lang WH (1979) Larval development of shallow water barnacles of the Carolinas (Cirripedia: Thoracica) with keys to naupliar stages. NOAA Tech Rep NMFS Circ 421: 1-39
- Leslie I (1995) The nucleic acid content of tissues and cells. In: Chargaff, E., Davidson, J.N., (eds.), *The nucleic acids: Chemistry and Biology*. Academic Press, New York, 2: 1-50
- Lewis CLA (1975) Reproductive biology and development of the goseneck barnacle, *Pollicipes polymerus*. Ph D Thesis, Univ of Alberta
- Litaker W, Duke CS, Kenny BE, Ramus J (1993) Short term environmental variability and phytoplankton abundance in a shallow tidal estuary. II. Spring and fall. Mar Ecol Prog Ser 94: 141-154
- Lucas MI, Walker G, Holland DL, Crisp DJ (1979) An energy budget for the free swimming and metamorphosing larvae of *Balanus balanoides* (Crustacea: Cirripedia). Mar Biol 5: 221-229
- Lucas JS (1982) Quantitative studies of feeding and nutrition during larval development of the coral reef asteroid *Acanthaster planci* (L). J Exp Mar Biol Ecol 65: 173-193
- Lucas A, Beninger PG (1985) The use of physiological condition indices in marine bivalve. Aquaculture Amsterdam. 44: 187-200
- Lucas MI, Crisp DJ (1987) Energy metabolism of eggs during embryogenesis in *Balanus balanoides*. J Mar Biol Ass U K 67: 27-54
- Mackas D, Denman KL, Abbott MR (1985) Plankton patchiness: biology in the physical vernacular. Bull Mar Sci 37(2): 652-674
- McEdward L (1984) Morphometric analysis of the growth and form of an echinopluteus. J Exp Mar Biol Ecol 82: 259-287
- Maki JS, Rittschof D, Costlow JD, Mitchell R (1988) Inhibition of attachment of larval barnacles, *Balanus amphitrite*, by bacterial films. Mar Biol 97: 199-206
- Maki JS, Rittschof D, Samuelsson MO, Szewzyk U, Yule AB, Kjelleberg S, Costlow JD, Mitchell R (1990) Effect of marine bacteria and their exopolymers on the attachment of barnacle cypris larvae. Bull Mar Sci 46(2): 499-511
- Menon NR, Katti RJ, Shetty HPC (1977) Ecology of marine fouling in Mangalore waters. Mar Biol 41: 127-140
- Mitbavkar S, Desai D, Khandeparker L, Anil AC, Wagh AB (1997) Fouling diatom community with reference to substratum variability in tropical marine environment. In: Emerging non metallic materials for the marine environment, Proceedings of US-Pacific Rim work shop, Hawaii, USA. Section 4 :38-54

- Mitbavker S, Anil AC (2002) Diatoms of microphytobenthic community: population structure in a tropical intertidal sand flat. *Mar Biol* 140: 41-57
- Mullin MM, Brooks ER (1976) Growth and metabolism of two planktonic marine copepods as influenced by temperature and type of food. In Steele JH (ed.) *Marine food chains*, University of California Press, Berkeley. pp 74-95
- Nair NV (1965) Marine fouling in Indian waters. *J Mar Biol Assoc UK* 24 (9): 483-488
- Navarrete SA, Wieters EA (2000) Variation in barnacle recruitment over small scales : larval predation by adults and maintenance of community pattern. *J Exp Mar Biol Ecol* 253 (2): 131-148
- Newman WA (1980) A review of extant *Scillaelepas* (Cirripedia: Scalpellidae) including recognition of new species from the North Atlantic, Western Indian Ocean and New Zealand. *Tethys* 9: 379-398
- Newman WA (1987) Evolution of cirripedes and their major groups. In *Barnacle biology, Crustacean Issues*, Southward AJ, Balkema AA (eds.), Rotterdam
- Neal AL, Simoes FN, Yule AB (1996) Interactions between shear rates and biofilms affecting exploratory behavior by cyprids of *Elminius modestus* (Cirripedia). *Mar Biol* 127: 241-246
- Nellis P, Bourget E (1996) Influence of physical and chemical factors on settlement and recruitment of the hydroids *Tubularia larynx*. *Mar Ecol Prog Ser* 140: 123-139
- Nilsson-Cantell CA (1938) Cirripedes from the Indian Ocean in the collections of the Indian Museum, Calcutta. *Mem Inadian Mus* 13(1): 1-18
- Olson RR (1985) In situ culturing of larvae of the crown of thorns starfish *Acanthaster planci*. *Mar Ecol Prog Ser* 25: 207-210
- Olson RR, Bosch I, Pearse JS (1987) The hypothesis of antarctic larval starvation examined for the asteroid *Odontaster validis*. *Limnol Oceanogr* 32: 686-690
- Olson RR, Olson MH (1989) Food limitations of planktotrophic invertebrate larvae: does it control recruitment success? *Annu Rev Ecol Syst* 20: 255-274
- Omori M, Ikeda T (1984) *Methods in marine zooplankton ecology*, Chapter 7. A Wiley-Interscience Publication, John Wiley and Sons, pp 143-145
- Parsons TR, Maita Y, Lalli CM (1984) *A manual of chemical and biological methods for seawater analysis*. Pergamon Press, pp 107
- Patel B, Crisp DJ (1960a) Rates of development of the embryos of several species of barnacles. *Physiol Zool* 33: 104-119

- Patel B, Crisp DJ (1960b) The influence of temperature on the breeding and moulting activities of operculate barnacles. *J Mar Biol Ass U K* 39: 667-680
- Patel B, Crisp DJ (1961) Relation between the breeding and moulting cycles in cirripedes. *Crustaceana* 2: 89-107
- Pauley G, Boring L, Strathmann RR (1985) Food limited growth and development of larvae: experiments with natural seawater. *J Exp Mar Biol Ecol* 93: 1-10
- Pechenik JA, Fischer NS (1979) Feeding, assimilation and growth of mud snail larvae, *Nassarius absoletus* (Say), on three different algal diets. *J Exp Mar Biol Ecol* 38: 57-80
- Pechenik JA (1987) Environmental influences on larval survival and development. In: Giese AC, Pearse JS, Pearse VB (eds.) *Reproduction of marine invertebrates, Chapter 8, General aspects: seeking unity in diversity.* Black-well Scientific Publications, Palo Alto, CA, Vol.9 pp 551-608
- Pechenik JA, Eyster LS, Widdows J, Bayne BL (1990) The influence of food concentration and temperature on growth and morphological differentiation of blue mussel *Mytilus edulis* L larvae. *J Exp Mar Biol Ecol* 136: 47-64
- *Pillai NK (1958) Development of *Balanus amphitrite* with a note on the early development of *Chelonibia testudinaria*. *Bull Central Res Inst Kerala India Ser C* 6: 117-130
- *Pilsbry HA (1916) The sessile barnacles (Cirripedia) contained in the collection of the U.S. National Museum: including a monograph of the American species. *Bull U S Natl Mus* 93: 1-366
- Pitcher GC, Walker DR, Mitchell-Innes BA, Moloney CI (1991) Short term variability during an anchor station study in the southern Benguela upwelling system: phytoplankton dynamics. *Prog Oceanogr* 28: 29-64
- Podolsky RD, Emler RB (1993) Separating the effect of temperature and viscosity on swimming and water movement by sand dollar larvae (*Dendraster excentricus*). *J Exp Biol* 176: 207-221
- Pomerat CM, Reiner ER (1946) The influence of surface angle and of light on the attachment of barnacles and other sedentary organisms. *Biol Bull* 82: 14-25
- Prakash A, Sarma ASV (1964) On the occurrence of 're water' phenomenon on the west coast of India. *Curr Sci* 33: 168-170
- Qasim SZ, Bhattathiri PA, Devassy VP (1972) The effect of intensity and quality of illumination on the photosynthesis of some tropical marine phytoplankton. *Marine Biology* 16: 22-27

- Qiu J-W, Louis AG, Qian P-Y (1997) Effects of short term variation in food availability on larval development in the barnacle *Balanus amphitrite amphitrite*. Mar Eco Prog Ser 161: 83-91
- Raimondi PT (1988) Settlement cues and determination of the vertical limit of an intertidal barnacle. Ecology 69: 400-407
- Raimondi PT (1990) Patterns, mechanisms, consequences of variability in settlement and recruitment of an intertidal barnacle. Ecol Monogr 60: 283-309
- Raimondi PT (1991) Settlement behavior of *Chthamalus anisopoma* larvae largely determines the adult distribution. Oecologia 85: 349-360
- Regnault M, Luquet P (1974) Study by evolution of nucleic acid content of prepuberal growth in the shrimp, *Crangon vulgaris*. Mar Biol 25: 291-298
- Richard P, Bergeron JP, Boulhic M, Galois R, Ruyet JP (1991) Effect of starvation on RNA, DNA and protein content of laboratory reared larvae and juveniles of *Solea solea*. Mar Ecol Prog Ser 72: 69-77
- Richardson TD, Brown KM (1990) Wave exposure and prey size selection in an intertidal predator. J Exp Mar Biol Ecol 142: 105-120
- Richmond MD, Seed R (1991) A review of marine macrofouling communities with special reference to animal fouling. Biofouling 3: 151-168
- Rittschof D, Branscomb ES, Costlow JD (1984) Settlement and behavior in relation to flow and surface in larval barnacles, *Balanus amphitrite* Darwin. J Exp Mar Biol Ecol 82: 131-146
- Ritz DA, Crisp DJ (1970) Seasonal changes in feeding rate in *Balanus balanoides*. J Mar Biol Assoc UK 50: 223-240
- Rodriguez SR, Ojeda FP, Inestrosa NC (1993) Settlement of benthic marine invertebrates. Mar Ecol Prog Ser 97: 193-207
- Roughgarden J, Gaines S, Possingham H (1988) Recruitment dynamics in complex life cycles. Science 241: 1460-1466
- Scheltema RS, Williams IP (1982) Significance of temperature to larval survival and length of development in *Balanus eburneus* (Crustacea: Cirripedia). Mar Ecol Prog Ser 9: 43-49
- Sandifer PA, Smith TJ (1979) Possible significance of variation in the larval development of palaemonid shrimp. J Exp Mar Biol Ecol 39: 55-64
- Santhakumaran LN (1989) The problems of fouling- a partial overview. In: Proceedings of marine biodeterioration with reference to power plant cooling

- systems, Nair KVK, Venugopalan VP (eds.) Marine biofouling and power plants. pp 19-34
- Scheltema RS, Carlton JT (1984) methods of dispersal among fouling organisms and possible consequences for range extension and geographical variation. In Costlow JD, Tipper RC (eds.) marine Biodeterioration: an interdisciplinary study, US naval Institute, Anapolis MD. pp 127-133
- Shetye SR, Gouveia AD, Singbal SY, Naik CG, Sundar D, Michael GS, Nampoothiri G (1995) Propagation of tides in the Mandovi- Zuari estuarine network. Proc Indain Acad Sci 104(4): 667-682
- Smayda TJm, Bienfang PK (1983) Suspension properties of various groups of phytoplankton and tintinnids in an oligotrophic, subtropical system. P S Z N I Mar Ecol 4: 289-300
- Smayda TJ, Boleyn BJ (1965) Experimental observations on the flotation of marine diatoms. I. *Thalassiosira* cf. *Nana*, *Thalassiosira rotula*, and *Nitzschia seriata*. Limnol Oceanogr 10: 449-509
- Smayda TJ, Boleyn BJ (1966a) Experimental observations on the flotation of marine diatoms. II. *Skeletonema costatum* and *Rhizosolenia setigera*. Limnol Oceanogr 11: 18-34
- Smayda TJ, Boleyn BJ (1966b) Experimental observations on the flotation of marine diatoms. III. *Bacteriastrum haalinum* and *Chaetoceros lauderi*. Limnol Oceanogr 11: 35-43
- Sokal RR Rohlf FJ (1981) Biometry: the principles and practice of statistics in biological research. WH Freeman and Company, San Francisco
- Sokal RR, Rohlf FJ (1987) Introduction to biostatistics, 2nd edn. WH Freeman and Co. New york
- Southward AJ (1955) On the behavior of barnacles. I. The relation of cirral and other activities to temperature. J Mar Biol Ass U K 34: 403-422
- Southward AJ (1957) On the behavior of barnacles. III. Further observations on the influence of temperature and age on cirral activity. J Mar Biol Ass U K 36: 323-334
- Starr M, Himmelman JH, Therriault JC (1991) Coupling of nauplii release in barnacles with phytoplankton blooms: a parallel strategy to that of spawning in urchins and mussels. J Plankt Res 13 (3) :561-571
- Starr M, Himmelman JH, Therriault JC (1990) Direct coupling of marine invertebrate spawning with phytoplankton blooms. Science 247: 1071-1074
- Steinberg PD, Chneider RS, Kjelleberg S (1997) Chemical defenses of seaweeds against microbial colonization. Biodegradation 1-10

- Stone CJ (1986) The effects of variations in diet, temperature and salinity on the development of cirripede anoplous. Ph. D. thesis, University of Wales, UK, pp 340
- Stone CJ (1988) Test of sequential feeding regimes for larvae of *Elminius modestus* Darwin (Cirripedia: Balanomorpha). J Exp Mar Biol Ecol 115: 41-51
- Strathmann RR (1971) The feeding behavior of planktotrophic echinoderm larvae: mechanisms, regulation, and rates of suspension-feeding. J Exp Mar Biol Ecol 6: 109-160
- Strathmann RR, Jahn TL, Fonseca JRC (1972) Suspension feeding by marine invertebrate larvae: clearance of particles from suspension by ciliated bands of a rotifer, pluteus, and trochophore. Biol Bull (Woods Hole, Mas.) 142: 505-519
- Strathmann RR, Bonar D (1976) Ciliary feeding of torneria larvae of *Ptychodera flava* (Hemichordata: Enteropneusta). Mar Biol 34: 505-519
- Strathmann RR, Branscomb ES, Vedder K, (1981) Fatal errors in set as a cost of dispersal and the influence of intertidal flora on set of barnacles. Oecologia. 48: 13-18
- Strickland JDH (1965) In Riley JP and Skirrow G (Eds), Chemical Oceanography, vol 1. 1st ed. Academic press, London, pp 477-610
- Subrahmanyam R (1954) A new member of the Eugleninae, *Protoeuglena noctilucae* gen. Et. Sp. n. occurring in *Noctiluca millaris* Sururay causing green discoloration of the sea off Calicut. Proc Indian Acad Sci 39B: 118-127
- Subrahmanyam R (1959) Studies on the phytoplankton of the west coast of India. Parts I and II. Proc Indian Acad Sci 50B :113-187
- Sulkin SD, Morgan RP II, Minasian LL Jr (1975) Biochemical changes during larval development of the xanthid crab *Rhithropanopeus harrisi* II. Nucleic acids. Mar Biol 32: 113-117
- *Sundararaj B (1927) Littoral fauna of the Krusadi Island in the Gulf of Mannar. Cirripedia (Barnacles). Bull Madras Govt Mus N S Nat Hist Sec 1(1): 111-115
- Sutherland JP (1984) The structure and stability of marine macrofouling communities, In Costlow J.D, Tipper R.C (eds.) Marine biodeterioration : an interdisciplinary study, U. S. Naval Inst. Press, Annapolis, Maryland
- Sutherland JP (1990) Recruitment regulates demographic variation in a tropical intertidal barnacle. Ecology 71: 955-972

- Svane I (1988) Recruitment and development of epibioses on artificial and cleared substrata at two sites in Gullmarsfjorden on the Swedish west coast. *Ophelia* 29: 25-41
- Tait RV (1981) Elements of marine ecology. Third edition. Butter worths London of Boston
- Thorson G (1950) Reproductive and larval ecology of marine bottom invertebrates. *Biol Rev* 25: 1-45
- Underwood AJ, Denley EJ, Moran MJ (1983) Experimental analysis of the structure and dynamics of mid-shore rocky intertidal communities in New South Wales. *Oecologia* 56: 202-219
- Utinomi H (1967) Comments on some new and already known cirripedes with amended taxa, with special reference to the parietal structure. *Publ Seto mar Biol Lab.* 15(3): 199-237
- Venugopalan VP and Wagh AB (1990) Biofouling of an offshore oil platforms: Faunal composition and biomass. *Ind J Mar Sci* 19 (1): 53-56
- Victor BC (1986) Larval settlement and juvenile mortality in a recruitment-limited coral reef fish population. *Ecol Monogr* 56: 145-160
- Wagner M, Durbin E, Buckley L (1998) RNA :DNA ratio as indicator of nutritional condition in the copepod *Calanus finmarchicus*. *Mar Ecol Prog Ser* 162: 173-181
- Wagh AB and Bal DV (1971) Observations on systematics of sessile barnacles from West coast of India. *J Bombay Natural History Society* 71 (1): 109-123
- Walley LJ (1965) The development and function of the oviducal glands in *Balanus balanoides*. *J Mar Biol Ass U K* 45: 115-128
- Walley LJ (1969) Studies on the larval structure and metamorphosis of *Balanus balanoides* (L). *Phil Trans R Soc (B)* 256: 237-280
- Walley LJ, White F, Brander KM (1971) Sperm activation and fertilization in *Balanus balanoides*. *J Mar Biol Ass U K* 51: 489-494
- Walker G (1977) Observation by scanning electron microscope (SEM) on the oviducal gland sacs of *Balanus balanoides* at egg laying. *J Mar Biol Assoc UK* 57: 969-972
- Walker G (1980) A study of the oviducal glands and ovisacs of *Balanus balanoides* (L), together with comparative observations on the ovisacs of *Balanus hameri* (Ascanius) and the reproductive biology of the two species. *Phil. Trans R Soc Lond (B)* 191: 147-162

- Wang SY, Stickle WB (1986) Changes in nucleic acid concentration with starvation in the blue crab *Callinectes sapidus* Rathbun. J Crustacean Biol (Lawrence, Kansas) 6: 49-56
- Wellington GM, Victor BC (1988) Variation in components of reproductive success in an undersaturated population of coral-reef damselfish-a field perspective. Am Nat 131: 588-601
- West TI, Costlow JD (1987) Size regulation in the larvae of the crustacean *Balanus eburneus* (Cirripedia : Thoracica). Mar Biol 96: 47-58
- Wethey DS (1979) Demographic variation in intertidal barnacles. Ph. D Thesis, Univ. Michigan, Ann Arbor, Michigan
- Wright DA, Hetzel EW (1985) Use of RNA/DNA ratios as an indicator of nutritional stress in the American oyster, *Cressostrea virginica*. Mar Ecol Prog Ser 25: 199-206
- Wright DA, Martin FD (1985) The effect of starvation on RNA:DNA ratios and growth of larval striped bass. *Morone saxtalis*. J Fish Biol 27: 479-485
- Wu RSS, Levings CD (1978) An energy budget for individual barnacles (*Balanus glandula*). Mar Biol 45: 225-235
- Yamaguchi T (1977) Taxonomic studies on some fossil and recent Japanese balanoida. Trans Proc Palaeont Soc Japan N S No. 107: 135-160
- Yule AB (1984) The effect of temperature on the swimming activity of barnacle nauplii. Mar Biol Lett 5: 1-11
- *Zenkevitch LA (1963) Biology of the seas of the USSR. Allen and Unwin, London, pp 955

* Not referred to in original

Appendix 1

Tables depicting the results of the polynomial regression of the influence of starvation (at 30° and 20° C temperature) on the DNA, RNA content and RNA:DNA ratio of the larvae (1-9 day old at different rearing conditions).

One day old larvae

Rearing conditions	Constant	R	P≤	N
30 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	1.8635, -0.0043, 0.00004	0.2213	Ns	16
RNA	1.9965, 0.0056, -0.0006	0.7496	0.001	16
RNA/DNA	1.0858, 0.0308, -0.0009	0.7158	0.001	16
30 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	1.6641, -0.005, 0.00005	0.1954	Ns	18
RNA	1.9861, 0.0178, -0.0009	0.8389	0.001	18
RNA/DNA	1.108, 0.0079, -0.0004	0.5219	0.02	18
30 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.7618, 0.0032	0.1892	Ns	16
RNA	2.4124, -0.0587	0.8059	0.001	16
RNA/DNA	1.4625, -0.0379	0.8354	0.001	16
30 °C, 1x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	1.749, 0.0162, -0.0006	0.6148	0.01	16
RNA	2.3305, 0.0244, -0.0012	0.8313	0.001	16
RNA/DNA	1.43, -0.0052, -0.0002	0.7220	0.001	16
20 °C, 2x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.6661, 0.0061	0.2395	Ns	16
RNA	1.8338, -0.0232	0.4484	0.1	16
RNA/DNA	1.1129, -0.0143	0.3956	Ns	16
20 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	1.6907, -0.0139, 0.002	0.2958	Ns	18
RNA	1.8679, -0.0211, -0.000006	0.7362	0.001	18
RNA/DNA	1.1219, -0.0025, -0.0002	0.5918	0.01	18
20 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.4058, -0.002	0.0707	Ns	15
RNA	1.8646, -0.0478	0.7441	0.001	15
RNA/DNA	1.4664, -0.0441	0.7178	0.01	15
20 °C, 1x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	1.3945, 0.0094, -0.0002	0.1732	Ns	19
RNA	1.8276, -0.0105, 0.0003	0.7473	0.001	19
RNA/DNA	1.4444, -0.0221, -0.00002	0.6858	0.001	19

Ns ; Not significant

Two day old larvae

Rearing conditions	Constant	R	p≤	N
30 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	2.0421, -0.0127, 0.0002	0.3828	Ns	20
RNA	2.3784, -0.0776, 0.0009	0.8370	0.001	20
RNA/DNA	1.2241, -0.037, 0.0004	0.76	0.001	20
30 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	2.0176, 0.0123, -0.0003	.2156	Ns	18
RNA	2.3745, -0.0735, 0.0008	0.7711	0.001	18
RNA/DNA	1.2303, -0.0433, 0.0006	0.7219	0.001	18
30 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.9026, -0.0194, 0.0004	0.4795	0.05	19
RNA	2.2739, -0.0844, 0.0012	0.8140	0.001	19
RNA/DNA	1.2236, -0.042, 0.0005	0.7347	0.001	19
30 °C, 1x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	1.8677, 0.0164, -0.0004	0.4994	0.05	18
RNA	2.2061, -0.0151, -0.0004	0.7570	0.001	18
RNA/DNA	1.1966, -0.0144, -0.00005	0.6732	0.001	18
20 °C, 2x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.797, -0.0389, 0.0008	0.5963	0.01	19
RNA	1.7973, -0.0627, 0.0009	0.7417	0.001	19
RNA/DNA	1.0131, -0.0191, 0.0002	0.4633	0.05	19
20 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	1.7187, 0.0432, -0.001	0.7598	0.001	18
RNA	1.7838, -0.0488, 0.0004	0.8867	0.001	18
RNA/DNA	1.0367, -0.0432, 0.0006	0.8651	0.001	18
20 °C, 1x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	1.7997, -0.0354, 0.0006	0.5492	0.02	17
RNA	1.6877, -0.0178, -0.00001	0.6463	0.01	17
RNA/DNA	0.9696, 0.0118, -0.0004	0.5791	0.02	17
20 °C, 1x10 ⁵ cells/ml, 24 h st. 20 °C				
DNA	1.7055, 0.02, -0.0006	0.5580	0.02	16
RNA	1.6944, -0.0241, 0.00005	0.7590	0.001	16
RNA/DNA	0.9955, -0.0208, 0.0002	0.7039	0.01	16

Ns ; Not significant

Three day old larvae

Rearing conditions	Constant	R	p≤	N
30 °C, 2x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	2.0202, -0.0085	0.3541	Ns	15
RNA	2.1139, -0.0157	0.3867	Ns	15
RNA/DNA	1.1152, -0.0063	0.0793	Ns	15
30 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	2.0507, -0.0397, 0.0007	0.6	0.01	17
RNA	2.1753, -0.0782, 0.0011	0.8327	0.001	17
RNA/DNA	1.1376, -0.029, 0.0003	0.6816	0.01	17
30 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.9682, 0.0008	0.0447	Ns	15
RNA	2.2695, -0.0559	0.8984	0.001	15
RNA/DNA	1.1752, -0.0291	0.8238	0.001	15
30 °C, 1x10 ⁵ cells/ml, 24 h st. 20 °C				
DNA	1.9783, -0.0093	0.4576	Ns	14
RNA	2.2514, -0.0378	0.7186	0.001	14
RNA/DNA	1.1634, -0.0173	0.5868	0.02	14
20 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	1.5324, 0.0288, -0.0005	0.3210	Ns	18
RNA	2.0731, -0.0665, 0.0009	0.7510	0.001	18
RNA/DNA	1.2988, -0.0496, 0.0007	0.6831	0.001	18
20 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	1.5509, 0.0115, -0.0002	0.2147	Ns	16
RNA	2.0173, -0.0549, 0.0005	0.8493	0.001	16
RNA/DNA	1.2906, -0.0369, 0.0004	0.8062	0.001	16
20 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.7841, 0.0008	0.0374	Ns	15
RNA	1.7037, -0.032	0.5471	0.02	15
RNA/DNA	1.1285, -0.0254	0.5069	0.05	15
20 °C, 1x10 ⁵ cells/ml, 72 h st. 20 °C				
DNA	1.7871, -0.0022, 0.00007, -0.000001	0.3456	Ns	19
RNA	1.6823, -0.0099, -0.0007, 0.000008	0.7666	0.001	19
RNA/DNA	1.0998, 0.0042, -0.0009, 0.000009	0.6638	0.001	19

Ns ; Not significant

Four day old larvae

Rearing conditions	Constant	R	P \leq	N
30 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	2.1806, 0.0166, -0.0006	0.565	0.01	18
RNA	1.8935, 0.0014, -0.0006	0.7221	0.001	18
RNA/DNA	1.0681, -0.0143, 0.00008	0.7861	0.001	18
30 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	2.2376, -0.0393, 0.0005	0.6952	0.01	16
RNA	1.9721, -0.0788, 0.0011	0.7653	0.001	16
RNA/DNA	1.0928, -0.0995, 0.0005	0.7485	0.001	16
30 °C, 1x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	2.0121, -0.0031, -0.00004	0.3281	Ns	20
RNA	2.6682, -0.111, 0.0014	0.9427	0.001	20
RNA/DNA	1.3406, -0.0476, 0.0005	0.8611	0.001	20
30 °C, 1x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	2.0227, -0.0139, 0.0002	0.6055	0.01	18
RNA	2.8327, -0.0748, 0.0006	0.9750	0.001	18
RNA/DNA	1.3251, -0.032, 0.0002	0.9039	0.001	18
20 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	2.2382, -0.0344, 0.0005	0.2889	Ns	19
RNA	1.89, -0.0467, 0.0004	0.8117	0.001	19
RNA/DNA	1.0702, -0.0223, 0.0001	0.6550	0.01	19
20 °C, 2x10 ⁵ cells/ml, 72 h st. 20 °C				
DNA	2.2496, -0.0462, 0.0008, -0.000004	0.3553	Ns	19
RNA	1.9086, -0.0659, 0.0011, -0.000005	0.7765	0.001	19
RNA/DNA	1.0701, -0.0222, 0.00008, 0.000003	0.4764	0.05	19
20 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.9487, -0.0135	0.3289	Ns	13
RNA	1.8673, -0.0192	0.2922	Ns	13
RNA/DNA	1.0053, 0.007	0.1148	Ns	13
20 °C, 1x10 ⁵ cells/ml, 48h st. 20 °C				
DNA	1.9472, -0.0121, 0.0002	0.3386	Ns	17
RNA	1.6758, -0.0278, 0.0001	0.6252	0.01	17
RNA/DNA	1.0258, -0.0135, 0.00004	0.5017	0.05	17

Ns ; Not significant

Five day old larvae

Rearing conditions	Constant	R	p≤	N
30 °C, 2x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	2.4673, -0.0303	0.6747	0.01	14
RNA	3.0417, -0.054	0.8723	0.001	14
RNA/DNA	1.3062, -0.0115	0.4183	Ns	14
30 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA				
RNA				
RNA/DNA				
30 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	2.0382, -0.0077	0.6145	0.01	16
RNA	2.471, -0.0316	0.6541	0.01	16
RNA/DNA	1.2208, -0.0121	0.4948	0.05	16
30 °C, 1x10 ⁵ cells/ml, 24 h st. 20 °C				
DNA	2.0425, -0.012	0.7487	0.001	15
RNA	2.5103, -0.0709	0.9106	0.001	15
RNA/DNA	1.2411, -0.0324	0.8551	0.001	15
20 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	1.8996, -0.0025, 0.00003	0.1276	Ns	19
RNA	2.3448, -0.0998, 0.0018	0.7673	0.001	19
RNA/DNA	1.2203, -0.0322, 0.0003	0.6210	0.01	19
20 °C, 2x10 ⁵ cells/ml, 72 h st. 20 °C				
DNA	1.7984, 0.0403, -0.0018, 0.00001	0.4975	0.02	21
RNA	2.3265, -0.082, 0.0023, -0.00002	0.8636	0.001	21
RNA/DNA	1.2411, -0.0545, 0.0017, -0.00002	0.6323	0.001	21
20 °C, 1x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	1.9171, -0.0312, 0.0008	0.6236	0.01	19
RNA	1.8802, -0.0438, 0.0004	0.8035	0.001	19
RNA/DNA	1.0052, -0.0127, 0.000009	0.7061	0.001	19
20 °C, 1x10 ⁵ cells/ml, 24 h st. 20 °C				
DNA	1.8924, -0.0053	0.2601	Ns	14
RNA	1.6692, -0.0325	0.6602	0.01	14
RNA/DNA	1.0072, -0.0147	0.4786	0.1	14

Ns ; Not significant

Six day old larvae

Rearing conditions	Constant	R	p≤	N
20 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	1.8901, -0.0097, 0.00008	0.4058	Ns	19
RNA	2.3931, -0.1015, 0.0012	0.9023	0.001	19
RNA/DNA	1.2866, -0.0531, 0.0006	0.8907	0.001	19
20 °C, 2x10 ⁵ cells/ml, 72 h st. 20 °C				
DNA	1.8542, 0.027, -0.0008, 0.000005	0.4446	0.05	20
RNA	2.3384, -0.046, 0.0003, -0.0000007	0.9145	0.001	20
RNA/DNA	1.2692, -0.0356, 0.0005, -0.000002	0.8258	0.001	20
20 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.9589, -0.0019	0.1191	Ns	16
RNA	2.1308, -0.0585	0.8621	0.001	16
RNA/DNA	1.1285, -0.0319	0.8227	0.001	16
20 °C, 1x10 ⁵ cells/ml, 72 h st. 20 °C				
DNA	1.9777, -0.0211, 0.0005, -0.000004	0.5734	0.01	21
RNA	2.1451, -0.0736, 0.0009, -0.000003	0.8439	0.001	21
RNA/DNA	1.1482, -0.0528, 0.0014, -0.00001	0.5047	0.02	21

Ns ; Not significant

Seven day old larvae

Rearing conditions	Constant	R	P≤	N
20 °C, 2x10 ⁵ cells/ml, 48 h st. 30 °C				
DNA	1.9159, -0.0146, 0.0002	0.4537	0.05	18
RNA	2.1413, -0.0477, 0.0004	0.6701	0.001	18
RNA/DNA	1.1386, -0.0272, 0.0004	0.4676	0.05	18
20 °C, 2x10 ⁵ cells/ml, 72 h st. 20 °C				
DNA	1.9076, -0.0064, -0.0002, -0.000003	0.5787	0.01	19
RNA	2.1357, -0.0421, 0.0005, -0.000003	0.7729	0.001	19
RNA/DNA	1.1296, -0.0178, 0.0001, -0.0000007	0.6862	0.001	19
20 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	1.9408, -0.0089	0.4821	0.05	16
RNA	2.1817, -0.0668	0.8594	0.001	16
RNA/DNA	1.1686, -0.0347	0.9425	0.001	16
20 °C, 1x10 ⁵ cells/ml, 72 h st. 20 °C				
DNA	1.9307, 0.0011, 0.00004, -0.000001	0.4002	Ns	21
RNA	2.1541, -0.0394, 0.0002, 0.0000008	0.8271	0.001	21
RNA/DNA	1.1582, -0.0245, 0.0002, -0.0000003	0.7978	0.001	21

Ns ; Not significant

Eight day old larvae

Rearing conditions	Constant	R	P≤	N
20 °C, 2x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	2.0786, -0.0168	0.7637	0.001	16
RNA	1.9977, -0.0575	0.8296	0.001	16
RNA/DNA	1.0431, -0.0282	0.7338	0.001	16
20 °C, 2x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	2.0609, 0.0008, -0.00008	0.3215	Ns	19
RNA	1.9805, -0.0406, 0.0003	0.7868	0.001	19
RNA/DNA	1.0402, -0.0255, 0.0003	0.7052	0.001	19
20 °C, 1x10 ⁵ cells/ml, 24 h st. 30 °C				
DNA	2.0133, -0.0152	0.6183	0.01	16
RNA	1.9047, -0.0309	0.5970	0.01	16
RNA/DNA	0.9923, -0.0083	0.2424	Ns	16
20 °C, 1x10 ⁵ cells/ml, 48 h st. 20 °C				
DNA	2.0026, -0.0045, 0.00003	0.4369	0.05	20
RNA	1.9013, -0.0275, -0.00009	0.8374	0.001	20
RNA/DNA	0.9969, -0.0128, -0.00008	0.7665	0.001	20

Ns ; Not significant

Nine day old larvae

Rearing conditions	Constant	R	P≤	N
20 °C, 2x10 ⁵ cells/ml, 24 h st. 20 °C				
DNA	4.4045, -0.0484	0.8386	0.001	14
RNA	4.1228, -0.0889	0.66	0.001	14
RNA/DNA	0.9655, -0.0148	0.4665	0.05	14
20 °C, 1x10 ⁵ cells/ml, 24 h st. 20 °C				
DNA	1.9599, -0.0046	0.3389	Ns	13
RNA	1.7212, -0.0292	0.6379	0.01	13
RNA/DNA	0.9044, -0.0147	0.5841	0.02	13

Ns ; Not significant

Appendix 2

Tables showing Two-way ANOVA results of the influence of starvation temperature and starvation duration on the DNA, RNA content and RNA:DNA ratio of the larvae of *Balanus amphitrite* reared at 20 and 30 °C and starved at 20 and 30°C.

One day old larvae

(30 °C 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	F _s	SS	MS	F _s	SS	MS	F _s
St. temp.	1	0.003	0.003	0.03 ns	0.075	0.07	0.22 ns	0.005	0.005	0.04 ns
St. hour	2	0.095	0.047	0.53 ns	9.01	4.5	13.1*****	2.86	1.42	11.7****
Interaction	2	0.06	0.03	0.34 ns	0.04	0.02	0.06	0.01	0.006	0.04 ns
Error	12	1.06	0.09		4.11	0.34		1.46	0.12	
Total	17	1.22			13.23			4.33		

(30 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	F _s	SS	MS	F _s	SS	MS	F _s
St. temp.	1	0.0003	0.003	0.014 ns	1.05	1.05	13.6****	0.11	0.11	2.3 ns
St. hour	2	0.017	0.017	0.68 ns	2.37	2.37	30.5*****	1.58	1.59	31.7*****
Interaction	2	0.0003	0.0003	0.014 ns	1.04	1.04	13.4****	0.11	0.11	2.3 ns
Error	12	0.199	0.0248		0.62	0.07		0.4	0.04	
Total	17	0.22			5.08			2.2		

(20 °C , 2x10⁵ cells.ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	F _s	SS	MS	F _s	SS	MS	F _s
St. temp.	1	0.11	0.11	2.27 ns	0.11	0.11	0.64 ns	0.09	0.09	1.19 ns
St. hour	1	0.45	0.45	9.69**	2.21	2.21	13.2 ***	0.86	0.86	10.9* *
Interaction	1	0.11	0.11	2.27 ns	0.11	0.11	0.64 ns	0.09	0.09	1.19 ns
Error	8	0.37	0.05		1.34	0.17		0.62	0.08	
Total	11	1.04			3.77			1.66		

(20 °C , 1x10⁵ cells.ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	F _s	SS	MS	F _s	SS	MS	F _s
St. temp.	1	0.04	0.04	0.8 ns	0.37	0.37	2.87 ns	0.21	0.21	1.0 ns
St. hour	1	0.012	0.012	0.26 ns	4.83	4.83	37.5 *****	4.7	4.7	21.9*****
Interaction	1	0.04	0.04	0.8 ns	0.37	0.37	2.87 ns	0.21	0.21	1.0 ns
Error	8	0.36	0.045		1.03	0.13		1.71	0.21	
Total	11	0.45			6.6			6.83		

(*****p≤0.001 *****≤0.005, *** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Two day old larvae

(30 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.02	0.02	0.48 ns	0.02	0.02	0.07 ns	0.006	0.006	0.1 ns
St. hour	2	0.05	0.02	0.54 ns	9.8	4.9	18.3*****	4.2	2.12	34.5*****
Interaction	2	0.07	0.03	0.73 ns	0.01	0.007	0.02	0.01	0.006	0.1 ns
Error	12	0.56	0.04		3.2	0.26		0.73	0.06	
Total	17	0.7			13.03			4.95		

(30 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.0002	0.0002	0.005 ns	0.04	0.04	0.12 ns	0.003	0.003	0.03 ns
St. hour	2	0.001	0.0007	0.018 ns	6.16	3.08	8.6****	1.88	0.94	8.01****
Interaction	2	0.23	0.11	3.002 ns	1.39	0.69	1.95 ns	0.06	0.03	0.27 ns
Error	12	0.47	0.04		4.28	0.36		1.4	0.12	
Total	17	0.70			11.9			3.34		

(20 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.15	0.15	2.22 ns	0.21	0.21	0.92 ns	0.31	0.31	2.2 ns
St. hour	2	0.21	0.1	1.47 ns	4.17	2.08	8.93****	1.62	0.8	5.68**
Interaction	2	0.77	0.39	5.55 **	0.1	0.05	0.23 ns	0.2	0.1	0.72 ns
Error	12	0.84	0.07		2.8	0.23		1.73	0.1	
Total	17	1.97			7.28			3.86		

(*****p≤0.001 ****≤0.005, *** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

(20 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.2	0.2	6.2**	0.08	0.08	0.39 ns	0.14	0.14	1.7 ns
St. hour	2	0.22	0.11	3.3 ns	3.9	1.9	8.85****	1.41	0.70	8.7****
Interaction	2	0.33	0.17	5.04**	0.08	0.04	0.18	0.1	0.05	0.64 ns
Error	12	0.4	0.03		2.67	0.22		0.97	0.08	
Total	17	1.15			6.73			2.62		

(*****p≤0.001 ****≤0.005, *** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Three day old larvae

(30 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.02	0.02	1.27 ns	0.24	0.24	1.23 ns	0.03	0.03	0.24 ns
St. hour	1	0.6	0.6	26.7*****	4.29	4.29	22.09*****	1.2	1.2	9.88**
Interaction	1	0.02	0.02	1.27 ns	0.26	0.26	1.37 ns	0.03	0.03	0.24 ns
Error	8	0.18	0.02		1.55	0.19		0.98	0.12	
Total	11	0.82			6.34			2.24		

(30 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.24	0.24	1.65 ns	0.11	0.11	0.65 ns	0.04	0.04	0.14 ns
St. hour	1	0.47	0.47	3.24 ns	1.05	4.05	23.1*****	4.36	4.36	15.2*****
Interaction	1	0.24	0.24	1.65 ns	0.11	0.11	0.65 ns	0.04	0.04	0.14 ns
Error	8	1.16	0.14		1.39	0.17		2.28	0.28	
Total	11	2.11			2.66			6.72		

(20 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.14	0.14	2.16 ns	0.06	0.06	0.25 ns	0.002	0.002	0.02 ns
St. hour	2	0.23	0.11	1.75 ns	5.59	2.79	10.6*****	4.08	2.04	23.05*****
Interaction	2	0.09	0.04	0.69 ns	0.1	0.05	0.19 ns	0.08	0.04	0.47 ns
Error	12	0.79	0.06		3.16	0.26		1.06	0.08	
Total	17	1.25			8.91			5.22		

(20 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.002	0.002	0.211 ns	0.31	0.31	1.8 ns	0.01	0.01	0.07 ns
St. hour	1	0.01	0.01	1.34 ns	1.48	1.48	8.87**	1.36	1.36	8.67**
Interaction	1	0.002	0.002	0.21 ns	0.31	0.31	1.83 ns	0.01	0.01	0.07 ns
Error	8	0.09	0.011		1.33	0.16		1.26	0.16	
Total	11	0.104			3.43			2.64		

(*****p≤0.001 ****p≤0.005, *** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Four day old larvae

(30 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.3	0.3	4.5 ns	0.29	0.29	2.04 ns	0.03	0.03	0.34 ns
St. hour	2	1.84	0.92	13.8*****	5.68	2.84	19.6*****	1.74	0.87	9.07*****
Interaction	2	0.39	0.19	2.92 ns	0.47	0.23	1.63 ns	0.07	0.03	0.39 ns
Error	12	0.8	0.06		1.73	0.14		1.15	0.09	
Total	17	3.33			8.17			2.99		

(30 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.001	0.001	0.02 ns	0.09	0.09	0.59 ns	0.002	0.002	0.009 ns
St. hour	2	0.17	0.08	1.5 ns	7.68	3.84	23.3*****	3.92	1.96	9.0*****
Interaction	2	0.02	0.01	0.21 ns	0.08	0.04	0.26 ns	0.01	0.005	0.02 ns
Error	12	0.68	0.05		1.97	0.16		2.61	0.21	
Total	17	0.871			9.82			6.542		

(20 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.3	0.03	0.4 ns	0.02	0.02	0.07 ns	0.02	0.02	0.16 ns
St. hour	2	0.2	0.1	1.11 ns	6.54	3.27	9.45 *****	5.24	2.62	14.2*****
Interaction	2	0.02	0.01	0.11 ns	0.01	0.006	0.01 ns	0.03	0.01	0.08 ns
Error	12	1.1	0.09		4.15	0.34		2.21	0.18	
Total	17	1.35			10.72			7.5		

(20 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.03	0.03	0.58 ns	0.01	0.01	0.03 ns	0.08	0.08	0.76 ns
St. hour	2	0.02	0.02	0.47 ns	1.99	1.99	4.38 *	1.87	1.87	17.4*****
Interaction	2	0.03	0.03	0.58 ns	0.01	0.01	0.03 ns	0.08	0.08	0.76 ns
Error	12	0.47	0.05		3.63	0.45		0.86	0.1	
Total	17	0.55			5.65			2.89		

(*****p≤0.001*****≤0.005,*** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Five day old larvae

(30 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.0005	0.0005	0.04 ns	0.34	0.34	5.15*	0.28	0.28	3.9 ns
St. hour	1	0.18	0.18	14.5****	3.4	3.4	50.4*****	1.16	1.16	16.1****
Interaction	1	0.0005	0.0005	0.04 ns	0.34	0.34	5.15*	0.28	0.28	3.9 ns
Error	8	0.1	0.01		0.54	0.06		0.57	0.07	
Total	11	0.281			4.62			2.29		

(20 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.003	0.003	0.07 ns	0.49	0.49	1.7 ns	0.01	0.02	0.16 ns
St. hour	2	0.15	0.07	1.56 ns	7.29	3.65	12.6*****	4.8	2.39	24.39*****
Interaction	2	0.14	0.07	1.48 ns	0.57	0.29	1.001 ns	0.04	0.02	0.25 ns
Error	12	0.6	0.05		3.45	0.29		1.18	0.09	
Total	17	0.893			11.8			6.03		

(20 °C , 1x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	Fs	SS	MS	Fs	SS	MS	Fs
St. temp.	1	0.01	0.01	0.64 ns	0.02	0.02	0.09 ns	0.006	0.006	0.06 ns
St. hour	1	0.17	0.17	7.76**	2.21	2.21	10.5**	0.66	0.66	7.31**
Interaction	1	0.01	0.01	0.64 ns	0.02	0.02	0.09 ns	0.006	0.006	0.06 ns
Error	8	0.18	0.02		1.68	0.21		0.72	0.09	
Total	11	0.37			3.93			1.392		

(*****p≤0.001 ****p≤0.005, *** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Six day old larvae

(20 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		Fs
		SS	MS	Fs	SS	MS	Fs	SS	MS	
St. temp.	1	0.28	0.28	19.3*****	0.83	0.83	10.5***	0.09	0.09	1.05 ns
St. hour	2	0.05	0.02	1.6 ns	8.3	4.14	52.5*****	3.95	1.97	22.2*****
Interaction	2	0.17	0.08	5.83**	0.54	0.27	3.4 ns	0.04	0.02	0.26 ns
Error	12	0.17	0.01		0.95	0.07		1.06	0.09	
Total	17	0.67			10.62			5.14		

(20 °C , 1x10⁵ cells ml⁻¹ reared)

	dF	DNA			RNA			RNA:DNA		Fs
		SS	MS	Fs	SS	MS	Fs	SS	MS	
St. temp.	1	0.07	0.07	1.97 ns	0.33	0.33	4.26 ns	0.04	0.04	0.59 ns
St. hour	1	0.01	0.01	0.49 ns	5.76	5.76	73.9*****	0.84	0.83	11.4****
Interaction	1	0.07	0.07	1.97 ns	0.33	0.33	4.26 ns	0.04	0.04	0.59 ns
Error	8	0.28	0.28		0.62	0.08		0.58	0.07	
Total	11	0.43			7.04			1.5		

(*****p≤0.001****≤0.005,*** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Seven day old larvae

(20 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		Fs
		SS	MS	Fs	SS	MS	Fs	SS	MS	
St. temp.	1	0.005	0.005	0.11 ns	0.001	0.001	0.007 ns	0.1	0.1	2.12 ns
St. hour	2	0.34	0.17	3.6 ns	3.63	1.81	10.08****	2.31	1.15	24.7*****
Interaction	2	0.013	0.006	0.13 ns	0.01	0.007	0.04 ns	0.09	0.04	0.96 ns
Error	12	0.56	0.04		2.16	0.18		0.56	0.04	
Total	17	0.918			5.801			3.06		

(20 °C , 1x10⁵ cells ml⁻¹ reared)

	dF	DNA			RNA			RNA:DNA		Fs
		SS	MS	Fs	SS	MS	Fs	SS	MS	
St. temp.	1	0.02	0.02	0.45 ns	0.53	0.53	16.3****	0.13	0.13	4.75 ns
St. hour	1	0.08	0.08	1.94 ns	6.57	6.57	201.9*****	2.46	2.46	92.9*****
Interaction	1	0.02	0.02	0.45 ns	0.53	0.53	16.3****	0.13	0.13	4.7 ns
Error	8	0.34	0.04		0.26	0.03		0.21	0.02	
Total	11	0.46			7.89			2.93		

(*****p≤0.001****≤0.005,*** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Eight day old larvae

(20 °C , 2x10⁵ cells ml⁻¹ reared)

	df	DNA			RNA			RNA:DNA		
		SS	MS	F _s	SS	MS	F _s	SS	MS	F _s
St. temp.	1	0.07	0.07	4.81 ns	0.18	0.18	3.13 ns	0.01	0.01	0.26 ns
St. hour	1	0.26	0.26	18.4****	5.54	5.54	94.1****	0.9	0.9	12.2***
Interaction	1	0.07	0.07	4.8 ns	0.18	0.18	3.13 ns	0.01	0.01	0.26 ns
Error	8	0.11	0.01		0.47	0.05		0.59	0.07	
Total	11	0.51			6.37			1.51		

(20 °C , 1x10⁵ cells ml⁻¹ reared)

	dF	DNA			RNA			RNA:DNA		
		SS	MS	F _s	SS	MS	F _s	SS	MS	F _s
St. temp.	1	0.14	0.14	2.01 ns	0.088	0.088	0.313 ns	0.019	0.019	0.268 ns
St. hour	1	0.21	0.21	2.97 ns	2.85	2.85	10.1 **	0.905	0.905	12.2 ***
Interaction	1	0.14	0.14	2.01 ns	0.088	0.088	0.31 ns	0.019	0.019	0.268 ns
Error	8	0.57	0.071		2.24	0.281		0.593	0.074	
Total	11	1.06			5.266			1.54		

(****p≤0.001****≤0.005,*** p≤0.01, **p≤0.025, *p≤0.05, ns- Not significant)

Publications

1. Dattesh Desai and A C Anil

Recruitment of the barnacle *Balanus amphitrite* Darwin in a tropical estuary: implications of environmental perturbations, reproduction and larval ecology

(Journal of Marine Biological Association of United Kingdom, Vol. 85: 909-920, 2005)

2. Dattesh Desai and A C Anil

The role of food type, temperature and starvation on the larval development of *Balanus amphitrite* Darwin (Cirripedia:Thoracica)

(Journal of Experimental Marine Biology and Ecology, Vol. 306: 113-137, 2004)

3. Dattesh Desai and A C Anil

Comparison of nutritional status of field and laboratory reared *Balanus amphitrite* (Darwin) larvae and an implication of starvation

(Journal of Experimental Marine Biology and Ecology, Vol. 280: 117-134, 2002)

4. A.C.Anil, Dattesh Desai and Lidita Khandeparker

Larval development and metamorphosis in *Balanus amphitrite* Darwin

(Cirripedia:Thoracica) : significance of food concentration, temperature and nucleic acids.

(Journal of Experimental Marine Biology and Ecology, Vol. 263(2): 125-141, 2001)

5. Dattesh Desai and A C Anil

Influence of temperature on the starvation threshold of nauplii of barnacle *Balanus amphitrite* (Cirripedia:Thoracica)

(Indian Journal of Marine Sciences, Vol 29: 69-72, 2000)