

## ເອກສາຮອ້າງອີງ

ກິຈການ ຕຸກມາດຍີ ແລະ ສີທີ ນຸ່ງຍັດຜລິນ. 2538. ກາຮສຶກຂາກູມີຄຸ້ມກັນໂຣຄແລະແນວທາງກາຮໃຫ້ວັດຫືນ ປັບກັນໂຣຄດີດເຊື້ອແນຄທີເຮີຍແລະໄວ້ສໃນກຸ່ງກຸລາດໍາ (*Penaeus monodon*) ຮາຍງານກາຮວັຈຍ ສໍານັກງານຄະແກຣມກາຮວັຈຍແໜ່ງໜາດີ. ມັນ 1-17.

ກິຈການ ຕຸກມາດຍີ, ອຸ່ນສີ່ຍີ ເອກປະລານພົງຕີ, Toshiaki Itami ແລະ ຈິຣາພຣ ແກ່ເຈົ້າຈັນທົງ. 2543a. ຮະບນກູມີຄຸ້ມກັນໂຣຄໃນກຸ່ງກຸລາດໍາ: I. ເຖິງນິກາຮສຶກຂາກູມີຄຸ້ມກັນໂຣຄແລະ ອົງຄປະກອນເລືອດໃນກຸ່ງກຸລາດໍາ. ວ. ສົງຂລາຄຣິນທົງ ວທກ. 22 (ຈົບັນພິເສດ): 567-580.

ກິຈການ ຕຸກມາດຍີ, ຈົກພຣ ເຮືອງຄຣີ, ສຸກງາ ຄີຣັງຮູນນິຄມ ແລະ ນເຮສ ຊ່ວນຍຸກ. 2543b. ຮະບນກູມີຄຸ້ມກັນ ໂຣຄໃນກຸ່ງກຸລາດໍາ: VII. ກາຮສຶກຂາອົງຄປະກອນເລືອດແລະ ຮະບນກູມີຄຸ້ມກັນໂຣຄໃນກຸ່ງກຸລາດໍານ ພຶ້ນຮຽນຂອງເພີ (sex) ແລະ ຂະາດ (size) ແລະ ວຈຈະລອກຄຣານ (molting cycle). ວ. ສົງຂລາ ຄຣິນທົງ ວທກ. 22 (ຈົບັນພິເສດ): 623-632.

ກິຈການ ຕຸກມາດຍີ, ຈົກພຣ ເຮືອງຄຣີ, ສຸກງາ ຄີຣັງຮູນນິຄມ ແລະ ນເຮສ ຊ່ວນຍຸກ. 2543c. ຮະບນກູມີຄຸ້ມກັນ ໂຣຄໃນກຸ່ງກຸລາດໍາ: V. ພລຂອງອຸ່ນທຸກົມ ປຣິມາແນອກເຊີເຈນລະລາຍນ້າ ແລະ ຄວາມເປັນກຣດ-ຕ່າງ ຂອງນ້ຳຕ່ອງຮະບນກູມີຄຸ້ມກັນໂຣຄແລະ ອົງຄປະກອນເລືອດໃນກຸ່ງກຸລາດໍາ. ວ. ສົງຂລາຄຣິນທົງ ວທກ. 22 (ຈົບັນພິເສດ): 605-614.

ກິຈການ ຕຸກມາດຍີ, ຈົກພຣ ເຮືອງຄຣີ, ສຸກງາ ຄີຣັງຮູນນິຄມ ແລະ ນຣິນທົງ ສົງຈັນທົງ. 2543d. ຮະບນ ກູມີຄຸ້ມກັນໂຣຄໃນກຸ່ງກຸລາດໍາ: IV. ກາຮສຶກຂາຕ່າງປົດຂອງຮະບນກູມີຄຸ້ມກັນແລະ ອົງຄປະກອນ ເລືອດໃນກຸ່ງກຸລາດໍາ. ວ. ສົງຂລາຄຣິນທົງ ວທກ. 22 (ຈົບັນພິເສດ): 597-603.

ກິຈການ ຕຸກມາດຍີ, ຈົກພຣ ເຮືອງຄຣີ, ສຸກງາ ຄີຣັງຮູນນິຄມ ແລະ ນເຮສ ຊ່ວນຍຸກ. 2543e. ຮະບນກູມີຄຸ້ມກັນ ໂຣຄໃນກຸ່ງກຸລາດໍາ: VI. ພລຂອງໂຣຄດີດເຊື້ອຕ່ອງຮະບນກູມີຄຸ້ມກັນແລະ ອົງຄປະກອນເລືອດໃນກຸ່ງ ກຸລາດໍາ. ວ. ສົງຂລາຄຣິນທົງ ວທກ. 22 (ຈົບັນພິເສດ): 597-603.

Aguirre, G. G., Vazquez, J. R. and Ascencio, F. 2001. Differences in the susceptibility of American white shrimp larval substages (*Litopenaeus vannamei*) to four *Vibrio* species. Invertebr. Pathol. 78: 215-219.

Alday de Graindorge, V. and Flegel, T. W. 1999. Diagnosis of shrimp diseases with emphasis on the black tiger prawn *Penaeus monodon*. Multimedia Asia, Multimedia Asia.

Anderson, I. G., Shamsudin, M. N. and Shariff, M. 1988. Bacterial septicemia in juvenile tiger shrimp, *Penaeus monodon*, cultured in Malaysian brackish water ponds. Asian Fish. Sci. 2: 93-108.

- Bondad, R. M. G., McGladdery, S. E., East, I. and Subasinghe, R. P. (eds.) 2001. Asia Diagnostic Guide to Aquatic Animal Diseases. FAO Fisheries Technical Paper No. 402, Supplement 2. Rome. 240 p.
- Boonyaratpalin, S., Supamattaya, K., Kasornchandra, J., Direkbusarakom, S., Aekpanithanpong, U. and Chantanachookin, C. 1993. Non-occluded baculo-like virus, the causative agent of yellow-head disease in the black tiger shrimp (*Penaeus monodon*). *Gyobyo Kenkyu* 28: 103-109.
- Boyd, C. E. and Tucker, C. S. 1992. Water Quality and Pond Soil Analyses for Aquaculture. Alabama Agriculture Experiment Station, Auburn University, Alabama. 183 p.
- Brock, J. A. and Main, K. L. 1994. A guide to the common problems and diseases of cultured *Penaeus vannamei*. The Oceanic Institute Makapuu Point, Honolulu, Hawaii. 242 p.
- Burrell, V. G., Jr., Sample, J., Batey, C. and Bobo, M. Y. 1991. Concentration of *Vibrio vulnificus* in oysters, *Crassostrea virginica*, grown in ponds with Pacific white shrimp, *Penaeus vannamei*. *Shellfish Res.* 10: 277.
- Chantanachookin, C., Boonyaratpalin, S., Kasornchandra, J., Direkbusarakom, S., Ekpanithanpong, U., Supamataya, K., Sriurairatana, S. and Flegel, T.W. 1993. Histology and ultrastructure reveal a new granulosis-like virus in *Penaeus monodon* affected by yellow-head disease. *Dis. Aquat. Org.* 17: 145-157.
- Chang, C. F., Su, M. S. and Chen, H. Y. 1999. A rapid method to quantify total haemocyte count of *Penaeus monodon* using ATP analysis. *Fish Pathol.* 34: 211-212.
- Chen, J. C. and Cheng, S. Y. 1995. Hemolymph oxygen content, oxyhemocyanin, protein levels and ammonia excretion in the shrimp *Penaeus monodon* exposed to ambient nitrite. *J. Comp. Physiol.* 164B: 530-535.
- Chen, J. C., Chen, C. T. and Cheng, S. Y. 1994. Nitrogen excretion and changes of hemocyanin, protein and free amino acid levels in the hemolymph of *Penaeus monodon* exposed to different concentrations of ambient ammonia-N at different salinity levels. *Mar. Ecol., Prog. Ser.* 110: 85-94.

- Chen, S. N., Huang, S. L. and Kou, G. H. 1992. Studies on the epizootiology and pathogenicity of bacterial infections in cultured giant tiger prawns, *Penaeus monodon*, in Taiwan. In: Fulks, W. and Main, K. L. (eds). Diseases of cultured penaeid shrimp in Asia and the United Stated. Proceeding of a workshop in Honolulu, Hawaii. 195-205.
- Chou, H. Y., Huang, C., Wang, C. H., Chiang, H. C. and Lo, C. F. 1995. Pathogenicity of a baculovirus infection causing white spot syndrome in cultured penaeid shrimp in Taiwan. Dis. Aquat. Org. 23:165-173.
- Couch, J.A. 1974a. An enzootic nuclear polyhedrosis virus of pink shrimp: ultrastructure, prevalence and enhancement. Invertebr. Pathol. 24: 311-331.
- Couch, J.A. 1974b. Free and occluded virus similar to Baculovirus in hepatopancreas of pink shrimp. Nature 247: 229-231.
- Cuellar, A. J., Brock, J. A., Suarez, J. A. and Aranguren, L. F. 1998. A survey of the pathogens and diseases in penaeid shrimp farmed in Colombia. World Aquacult. Soc., Baton Rouge, Louisiana, USA. 126 p.
- Demers, N. E. and Bayne, C. J. 1997. The immediate effects of stress on hormones and plasma lysozyme in rainbow trout. Develop. & Comp. Immunol. 21: 363-373.
- Duncan, D. W. 1955. Multiple-range and multiple F-tests. Biometrics. 11: 1-42.
- Flegel, T. W. and Alday-Sanz, V. 1998. The crisis in Asian shrimp aquaculture: current status and future needs. J. Appl. Ichthyol. 14: 269-273.
- Flegel, T. W., Sriurairatana, S., Morrison, D. J. and Waiyakrutha, N. 1997. *Penaeus monodon* captured broodstock surveyed for yellow-head virus and other pathogens by electron microscopy. In: Flegel, T.W. and Menasveta, P. (eds.). Shrimp Biotechnology. National Center for Genetic Engineering and Biotechnology, Bangkok. 37-43.
- Gomez, G. B., Tron-Mayen, L., Roque, A., Turnbull, J. F., Inglis, V. and Guerra-Flores, A. L. 1998. Species of *Vibrio* isolated from hepatopancreas, haemolymph and digestive tract of a population of healthy juvenile *Penaeus vannamei*. Aquaculture 163: 1-9.

- Gross, P. S., Bartlett, T. C. Browdy, C. L. Chapman, R. W., War, G. W. 2001. Immune gene discovery by expressed sequence tag analysis of hemocytes and hepatopancreas in the Pacific white shrimp, *Litopenaeus vannamei*, and the Atlantic white shrimp, *L. setiferus*. *Dev. Comp. Immunol.* 25: 565-577.
- Hall, M. R. and van Ham, E. H. 1998. The effects of different types of stress on blood glucose in the giant tiger prawn *Penaeus monodon*. *J. World. Aquacult. Soc.* 29(3): 290-299.
- Hennig, O., Itami, T., Maeda, M., Kondo, M., Natsukari, Y., Takahashi, Y. 1998. Analyses of hemolymph immunoparameters in kuruma shrimp infected with penaeid rod-shaped DNA virus. *Fish Pathol.* 33(4): 389-393.
- Hu, C. and Tao, B. 2000. Penaeid shrimp vibriosis and immune prevention: a review. *Tropic Oceanol; Redai Haiyang* 19: 84-94.
- Hyvarinen, A. and Nikkila, E. 1962. Specific determination of blood glucose with o-toluidine. *Clin. Chem. Acta.* 7 : 140-143.
- Jiravanichpaisal, P and Miyazaki, T. 1994. Histopathology, biochemistry and pathogenicity of *Vibrio harveyi* infecting black tiger prawn *Penaeus monodon*. *Aquat. Anim. Health* 6: 27-35.
- Johnson, S. K. 1994. Handbook of shrimp diseases. Texas University.
- Jussila, J. McBride, S., Jago, J., Evans, L. H. 2001. Hemolymph clotting time as an indicator of stress in western rock lobster (*Panulirus Cygnus* George). *Aquaculture* 199: 185-193.
- Labric, L. 2001. Effect of methylparathion on the susceptibility of shrimp to bacterial challenge. Toulouse France Ecole Natl. Veterinaire ENVT 2001. 101.
- Le Moullac, G. and Haffner, P. 2000. Environmental factors affecting immune responses in crustacea. *Aquaculture.* 191: 121-131.
- Le Moullac, G., Le Groumellec, M., Ansquer, D., Froissard, S. and Levy, P. 1997. Haematological and phenoloxidase activity changes in the shrimp *Penaeus stylorostris* in relation with the moult cycle: Protection against vibriosis. *Fish & Shellfish Immunol.* 7(4): 227-234.

- Le Moullac, G., Soyez, C., Saulnier, D., Ansquer, D., Avarre, J. and Levy, P. 1998. Effect of hypoxic stress on the immune response and the resistance to vibriosis of the shrimp *Penaeus stylirostris*. Fish & Shellfish Immunol. 8(8): 621-629.
- Lightner, D.V. 1993. Diseases of cultured penaeid shrimp. In: McVey, J.P. (ed.) CRC Handbook of Mariculture, Second Edition, Vol. 1, Crustacean Aquaculture. CRC Press Inc., Boca Raton, FL. 393-486.
- Lightner, D.V. 1996. A Handbook of Shrimp Pathology and Diagnostic Procedures for Diseases of Cultured Penaeid Shrimp. World Aquacult. Soc., Baton Rouge, LA, USA.
- Lightner, D. V., Bell, T. A., Redman, R. M., Mohney, L. L., Natividad, J. M., Rukyani, A. and Poernomo, A. 1992. A review of some major diseases of economic significance in penaeid prawns/shrimps of the Americas and Indo-Pacific. In: Shariff, M. Subasinghe, R. and Arthur, J.R. (eds.) Proceedings First Symposium on Diseases in Asian Aquaculture. Fish Health Section, Asian Fish. Soc, Manila, Philippines. 57-80.
- Lightner, D. V., Redman, R. M. and Bell, T. A. 1983. Infectious hypodermal and hematopoietic necrosis a newly recognised virus disease in penaeid shrimp. Invertebr. Pathol. 42: 62-70.
- Lightner, D. V., Redman, R.M., Poulos, B. T., Nunan, L.M., Mari, J. L. and Hasson, K. W. 1997. Risk of spread of penaeid shrimp viruses in the Americas by the international movement of live and frozen shrimp. Rev. Sci. Technol. Off. Int. Epiz. 16: 146-160
- Limsuwan, C. 1991. Handbook for cultivation of black tiger prawns. Tansetakit Co. Ltd, Bangkok.
- Lin, C. K. 1989. Prawn culture in Taiwan, What went wrong?. World Aquaculture 20: 19-20.
- Liu, C. H. and Chen, J. C. 2004. Effect of ammonia on the immune response of white shrimp *Litopenaeus vannamei* and its susceptibility to *Vibrio alginolyticus*. Fish Shellfish Immunol. 16: 321-334.
- Lowry, O. H., Rosebrough, N. J. Farr, A. L. and Randell, R. J. 1951. Protein measurement with the folin phenol reagent. J. Biol. Chem. 193: 265-275.

- Mikulski, C. M., Burnett, L. E. and Burnett, K. G. 2000. The effects of hypercapnic hypoxia on the survival of shrimp challenged with *Vibrio parahaemolyticus*. *Shellfish Res.* 19: 301-311.
- Mohney, L. L., Lightner, D. V. and Bell, T. A. 1991. An epizootic due to *Vibrio* spp. in pond-reared *Penaeus vannamei* in Ecuador. *World Aquaculture Meeting, Book of Abstracts, Puerto Rico* 45.
- Mohney, L. L., Lightner, D. V. and Bell, T. A. 1994. An epizootic of vibriosis in Ecuadorian pond-reared *Penaeus vannamei* Boone (Crustacea: Decapoda). *World Aquacult. Soc.* 25: 116-125.
- Munoz, M., Cedeno, R., Rodriguez, J., van der Knaap, W. P. W., Mialhe, E. and Bachere, E. 2000. Measurement of reactive oxygen intermediate production in haemocytes of the penaeid shrimp, *Penaeus vannamei*. *Aquacult.* 191: 89-107.
- Nash, G., Nithimathachoke, C., Tungmandi, C., Arkarjamom, A., Prathanipat, P. and Ruamthaveesub, P. 1992. Vibriosis and its control in pond-reared *Penaeus monodon* in Thailand. In: Shariff, M., Subasinghe, R.P., Arthur, J.R. (eds.) *Proceedings First Symposium on Diseases in Asian Aquaculture. Fish Health Section, Asian Fish. Soc., Manila, Philippines.* 143-155.
- OIE. 1999. *Regional Aquatic Animal Disease Yearbook 1999 (Asia and Pacific Region).* OIE Representation for Asia and the Pacific. Tokyo, Japan 35 p.
- OIE. 2000a. *Diagnostic Manual for Aquatic Animal Disease, Third Edition, 2000.* Office International des Epizooties, Paris, France. 237 p.
- OIE. 2000b. *Regional Aquatic Animal Disease Yearbook 1999 (Asia and Pacific Region).* OIE Representation for Asia and the Pacific. Tokyo, Japan 40 p.
- Perazzolo, L. M. and Barracco, M. A. 1997. The prophenoloxidase activating system of the shrimp *Penaeus paulensis* and associated factors. *Dev. Comp. Immunol.* 21(5): 385-395.
- Perazzolo, L. M., Gargioni, R., Ogliari, P. and Barracco, M. A. A. 2002. Evaluation of some hemato-immunological parameters in the shrimp *Farfantepenaeus paulensis* submitted to environmental and physiological stress. *Aquaculture* 214: 19-33.
- Paterson, M., Cerenius, L. and Soderhall, K. 1987. The influence of haemocyte number on the resistance of the freshwater crayfish, *Pacifastacus leniusculus* Dana, to the parasitic fungus, *Aphanomyces astaci*. *J. Fish Dis.* 10: 471-477.

- Pichs, Y. J. B., Lopez, G. E., Alvarez, L. G. and Ramos, T. R. 2002. Assay for establish of immune check-up in *Penaeus schmitti* shrimp. Serie Monografias Del ICCM. Barber, H.F. P., Lopez, M.I. Direccion General de Universidades E. Investigacion Consejeria de Ediccion Culturay Deportes Gobierno de Canarias Instituto Canario de Ciencias Marinas ICCM. 443-452. (Abstract)
- Robertson, P. A. W., Calderon, J., Carrera, L., Stark, J. R., Zherdmant, M. and Austin, B. 1998. Experimental *Vibrio harveyi* infections in *Penaeus vannamei* larvae. Dis. Aquat. Org. 32: 151-155.
- Rodriguez, J. and Le Moullac, G. 2000. State of the art of immunological tools and health control of penaeid shrimp. Aquacult. 191: 109-119.
- Roque, A., Turnbull, J. F., Escalante, G., Gomez-Gill, B. and Alday-Sanz, M. V. 1998. Development of a bath challenge for the marine shrimp *Penaeus vannamei* Boone, 1931. Aquaculture 169: 283-290.
- Sanchez, A., Pascual, C., Sanchez, A. Vargas-Albores, F., Le Moullac, G., Rosas, C. 2001. Hemolymph metabolic variables and immune response in *Litopenaeus setiferus* adult males: the effect of acclimation. Aquaculture 198: 13-28.
- Sano, T., Nishimura, T., Oguma, K., Momoyama, K. and Takeno, N. 1981. Baculovirus infection of cultured kuruma shrimp, *Penaeus japonicus*, in Japan. Fish Pathol. 15: 185-191.
- Sindermann, C.J. 1990. Principal Diseases of Marine Fish and Shellfish, Vol. 2, Second Edition. Academic Press, New York.
- Smith, V. J. and Soderhall, K. 1983.  $\beta$ -1, 3-glucan activation of crustacean hemocytes *in vitro* and *in vivo*. Biol. Bull. 164: 299-314.
- Smith, V. J., Swindlehurst, R. J., Johnston, P. A. and Vethaak, A. D. 1995. Disturbance of host defence capability in common shrimp, *Crangon crangon*, by exposure to harbour dredge spoils. Aquat. Toxicol. 32 (1): 43-58.
- Sritunyalucksana, K., Sithisarn, P. Withayachumnarnkul, B. and Flegel, T. W. 1999. Activation of prophenoloxidase, agglutinin and antibacterial activity in haemolymph of the black tiger prawn, *Penaeus monodon*, by immunostimulants. Fish Shellfish Immunol. 9: 21-30.

- Song, Y. L., Yu, C. I., Lien, T. W., Huang, C. C. and Lin, M. N. 2003. Haemolymph parameters of Pacific white shrimp (*Litopenaeus vannamei*) infected with Taura syndrome virus. *Fish Shellfish Immunol.* 14: 317-331.
- Subasinghe, R. P., Bondad-Reantaso, M. G. and McGladdery, S. E. 2001. Aquaculture Development, health and wealth. In: Subasinghe, R.P., Bueno, P., Phillips, M. J., Hough, C., McGladdery, S. E. and Arthur, J. R. (eds.). *Aquaculture in the Third Millennium. Technical Proceeding of Conference on Aquaculture in the Thrid Millennium*, Bangkok, Thailand, 20-25 February 2000. NACA, Bangkok and FAO, Rome.
- Sung, H. and Sun, R. 1999. Intrahaemocytic activity of lysosomal enzymes in *Penaeus monodon* and *Macrobrachium rosenbergii*. *Fish & Shellfish Immunol.* 9: 505-508.
- Supamattaya, K., Hoffmann, R. W., Boonyaratpalin, S. and Kanchanaphum, P. 1998. Experimental transmission of white spot syndrome virus (WSSV) from black tiger shrimp *Penaeus monodon* to the sand crab *Portunus pelagicus*, mud crab *Scylla serrata* and krill *Acetes* sp. *Dis. Aqua. Org.* 32: 79-85.
- Supamattaya, K., Kasornchandra, J. and Boonyaratpalin, S. 1994. Comparative study of simple methods for the diagnosis of yellow head baculovirus in the black tiger shrimp (*Penaeus monodon*). *Songklanakain J. Sci. Technol.* 16(1): 37-48.
- Takahashi, Y., Itami, T., Maeda, M., Suzuki, N., Kasornchandra, J., Supamattaya, K., Khongpradit, R., Boonyaratpalin, S., Kondo, M., Kawai, K., Kusuda, R., Hirono, I. and Aoki, T. 1996. Polymerase chain reaction (PCR) of bacilliform virus (RV-PJ) DNA in *Penaeus japonicus* Bate and systemic ectodermal and mesodermal baculovirus (SEMBV) in *Penaeus monodon* Fabricius. *J. Fish Dis.* 19: 399-403.
- Takahashi, Y., Shimoyama, Y. and Momoyama, K. 1985. Pathogenicity and characteristics of *Vibrio* sp. isolated from diseased postlarvae of kuruma prawn, *Penaeus japonicus* Bate. *Bull. Jpn. Soc. Sci. Fish.* 51: 721-730.
- Tang, K. F. J. and Lightner, D. V. 1999. A yellow head virus gene probe: nucleotide sequence and application for *in situ* hybridization. *Dis. Aquat. Org.* 35: 93-98.
- van de Braak, C. B. T. 2002. Haemocytic defence in black tiger shrimp (*Penaeus monodon*). Ph. D. Thesis, Wageningen University, The Netherlands.
- Vanderzant, C. and Nickelson, R. 1972. Survival of *Vibrio parahaemolyticus* in shrimp tissues under various environmental conditions. *Appl. Microbiol.* 23: 34-37.

- Wongteerasupaya, C., Sriurairatana, S., Vickers, J. E., Akrajamom, A., Boonsaeng, V., Panyim, S., Tassanakajon, A., Withyachumnarnkul, B. and Flegel, T. W. 1995. Yellow-head virus of *Penaeus monodon* is an RNA virus. Dis. Aquat. Org. 22: 45-50.
- Yu, J. 1993. Hemocyte classification, density and percentage of the kuruma prawn *Penaeus japonicus*. J. Ocean Oniv. Qingdao Qingdao Haiyang Daoxue Xuedao. 23(1): 107-114.
- Zhang, L., Hu, C. and Wu, Z. 2000. Blood pathological study on *Penaeus monodon* experimentally infected by WSBV. Trop. Oceanol. Redai Haiyang. 19:1-7. (Abstract)