

## เอกสารอ้างอิง

กรมปะรัง. ยุทธศาสตร์การพัฒนาปีกานิล พ.ศ.2553-2557. กระทรวงเกษตรและสหกรณ์ 2553  
กองพัฒนาอุตุนิยมวิทยา. สรุปสภาพอากาศของประเทศไทย พ.ศ.2560. 2561 [เข้าถึงเมื่อ 2561

มกราคม11] [เข้าถึงได้จาก

<https://www.tmd.go.th/programs/uploads/yearlySummary/202560up2.pdf>

คีรี อ่อนนันต์กุล, จุพ สินชัยพานิช. การเลี้ยงปีกานิลในระบบทั่ง. สำนักพัฒนาและถ่ายทอดเทคโนโลยี  
การประมง 2557:9-1.

ชนกันต์ จิตมนัส. โรคปีกานิล. เชียงใหม่สัตวแพทย์สาร 2556;11:75-86.

นิวัตร จันทร์ศิริพรชัย. ระบบวิทยาและเวชศาสตร์ป้องกันการสัตว์. พิมพ์ครั้งที่ 1. กรุงเทพฯ: โรงพิมพ์  
จุฬาลงกรณ์มหาวิทยาลัย; 2551

พิพัฒน์ อรุณ วิภาส. ระบบวิทยาทางสัตวแพทย์. พิมพ์ครั้งที่ 1. กรุงเทพฯ: โรงพิมพ์  
มหาวิทยาลัยเกษตรศาสตร์; 2556

พิมพกานต์ เลอเบล, ชนกันต์ จิตมนัส, นิวัติ วงศ์ชัย, คงกล พรหมยะ, พัชราลาภ ศรียะศักดิ์และหลุยส์  
เลอบล.. ผลกระทบของน้ำท่วมและภัยแล้งต่อการเลี้ยงปีกานิลในระบบทั่งในแม่น้ำ. สารวิจัย  
มหาวิทยาลัยขอนแก่น 2557;19(4):540-541.

ภาวน พุดงทศ. ระบบวิทยาทางสัตวแพทย์. พิมพ์ครั้งที่ 1. กรุงเทพฯ : หนอชาบ้าน; 2550.

รัชต์ ขัตติยะ, ธีระพงษ์ โปปลา, ออมเรศ แก้ววิมล, ชาญณรงค์ รอดคำ. รายงานสัตว์ป่วย : การติดเชื้อ<sup>†</sup>  
ฟรานซิสเซลลาในปีกานิลแดงจากระบบทั่ง. การประชุมวิชาการประมงระดับนานาชาติ  
ประจำปี 2559; วันที่ 29 กุมภาพันธ์ – 1 มีนาคม 2559; คณะเทคโนโลยีการประมงและ  
ทรัพยากรทางน้ำ มหาวิทยาลัยแม่โจ้ อำเภอสันทราย จังหวัดเชียงใหม่. เชียงใหม่; 2559.

วิรัช จิวแหยม. ความรู้เบื้องต้นเกี่ยวกับคุณภาพน้ำและการวิเคราะห์คุณภาพน้ำในบ่อเพาะเลี้ยงสัตว์น้ำ.

พิมพ์ครั้งที่ 1. กรุงเทพฯ: จุฬาลงกรณ์มหาวิทยาลัย; 2544

หลุยส์ เลอเบล, ชนกันต์ จิตมนัส. การประเมินความเสี่ยงและทางเลือกในการปรับตัว.

การเปลี่ยนแปลง สภาพภูมิอากาศและการเพาะเลี้ยงสัตว์น้ำในภาคเหนือของประเทศไทย.

โครงการความต่อเนื่องทางวิชาชีพ. หน่วยวิจัยสังคมและสิ่งแวดล้อม คณะสังคมศาสตร์,  
มหาวิทยาลัยเชียงใหม่; 2558

สิทธิชัยสันต์ คลวงศักจันทอง. ตำราระบบวิทยาในสัตว์ TEXTBOOK OF Veterinary Epidemiology.

พิมพ์ครั้งที่ 1. เชียงราย: มหาวิทยาลัยราชภัฏเชียงราย; 2558

กรมประมง สภิติการประมงแห่งประเทศไทย พ.ศ. 2557. ศูนย์เทคโนโลยีสารสนเทศและการสื่อสาร

2559;11:10-52.

สุดา ตัณฑานิช, เต็มดวง สมศิริ, วรวิทย์ มนีพิทักษ์สันติ, จารี พลชนะ, วารินี ปัญญาชิริ, ฐิติพร หลา  
ประเสริฐ, จิรากรณ์ บำรุงกิจ, และคณะ. โรคปลาโนล.กรุงเทพฯ: สถาบันวิจัยสุขภาพน้ำจืด  
กรมประมง. 2554.

สุฤทธิ์ สมบูรณ์ชัย, เทพรัตน์ อึ้งเศษยูพันธ์ และประจวบ ฉายบุ. แนวทางการจัดการแบบมีส่วนร่วม  
เพื่อการอนุรักษ์และใช้ประโยชน์ความหลากหลายทางชีวภาพของทรัพยากรป่าธรรมชาติอย่าง  
ยั่งยืนในแม่น้ำปิงจังหวัดเชียงใหม่. รายงานผลงานวิจัย มหาวิทยาลัยแม่โจ้ 2549.

อรรถพล กำลังดี. โรคคิดเชื้อฟرانซิเซลลา (*Francisella* sp.) ในปลาทันทิม. ท้าวหันโนคุบตีใหม่ใน  
สัตว์น้ำ, กุ้งและปลา. พิมพ์ครั้งที่ 1. นครปฐม: คatta เปเปอร์ แอนด์ พรินท์; 2553. 11-15.

Alfjorden A, Jansson E, Johansson KE. A systemic granulomatous inflammatory disease in  
wild Atlantic cod, *Gadus morhua* associated with a bacterium of the genus *Francisella*.  
Disease Interactions and Pathogen exchange between farmed and wild aquatic animal  
populations a European network (DIPnet) 2006.

Arya M, Shergill IS, Williamson M, Gommersall L, Arya N, Patel HRH. Basic Principle of real-  
times quantitative PCR. Expert Rev. Mol. Diagn 2005;5:209-17.

Assis GBN, Tavares GC, Pereira FL, Figueiredo HCP, Leal CAG. Natural coinfection by  
*Streptococcus agalactiae* and *Francisella noatunensis* subsp. *Orientalis* in farmed Nile  
tilapia (*Oreochromis niloticus* L.). J Fish Dis 2001;40:51-63.

Berrada ZL, Telford SR III. Diversity of *Francisella* species in environmental samples from  
Martha's Vineyard, Massachusetts. Microb Ecol 2010;59:277-83.

Bernet D, Schmidt-Posthaus H, Wahil T, Burkhardt-Holm P. Effects of wastewater on fish health:  
an integrated approach to biomarker responses in brown trout (*Salmo trutta* L.). J Aquat  
Ecos Stre Roc 2000;8:143-51.

Beveridge M. Cage aquaculture (3<sup>rd</sup> edition). Wiley-Blackwell Publishing, Oxford, UK. 2004:380.

Birkbeck TH, Bordevik M, Froystad MK, Baklien A. Identification of *Francisella* sp. from Atlantic  
salmon, *Salmo salar* L., in Chile. J Fish Dis 2007;30:505-7.

- Bohle H, Tapia E, Martínez A, Rozas M, Figueroa A, Bustos P. *Francisella philomiragia*, a bacteria associated with high mortalities in Atlantic salmon (*Salmo salar*) cage-farmed in Llanquihue lake. Arch Med Vet 2009;41:237-44.
- Caipang CMA, Kulkarni A, Brinchmann MF, Korsnes K, Kiron K. Detection of *Francisella piscicida* in Atlantic cod (*Gadus morhua L*) by the loopmediated isothermal amplification (LAMP) reaction. Vet J 2010;184:357-36.
- Chakraborty S, Banerjee S. Comparative growth performance of mixed-sex and monosex Nile tilapia at various stocking densities during cage culture. Int J Biol 2012;4:46-50.
- Chambers E, Gardiner R, Peeler EJ. An investigation into the prevalence of *Renibacterium salmoninarum* in farmed rainbow trout (*Onchorhynchus mykiss*) and wild fish populatins in selected river catchments in England and Wales between 1998 and 2000. J Fish Dis 2008;31:89-96.
- Chen RS, Chao CB. Outbreaks of a disease caused by *rickettsia*-like organism in cultured tilapias in Taiwan. Fish Pathol 1994;29:61-71.
- Chen SC, Wang PC, Tung MC, Thompson KD, Adams A.A. *Piscirickettsia salmonis*-like organism in grouper, *Epinephelus melanostigma*, in Taiwan. J Fish Dis 2000;23:415-18.
- Colquhoun DJ. and Duaud S. *Francisella* infections in farmed and wild aquatic organisms. Vet Res 2011;47.
- Corsin F, Turnbull JF, Mohan CV, Phi TT, Phuoc LH, Tinh NTN, Morgan KL. Dis Aquat Org Organism 2001;47:1-12.
- Davies A. A *Rickettsia*-like organism from Dragonets, *Callionymus lyra L.* (*Teleostei : Callionymidae*) in Wales. Bull Eur Assoc Fish Pathol 1986;6:103-4.
- De JE and Van DL. An introduction to data cleaning with R Statistics. 1<sup>st</sup> ed. Netherlands: The Hague/Heerlen; 2013.
- Diana J, Lin C, Jaiyen K. Suplemental feeding of tilapia in fertilized ponds. J W Aqua So 1994;25:497-506.
- Diana JS, Yi Y, Lin CK. Stocking density and fertilization regimes for Nile tilapia (*Oreochromis niloticus*) production in ponds with supplemental feeding J W Aqua So 1995;487-99.

- Dong TH, Nguyen VV, Le DH, Sangsuriya P, Jitrakorn S, Saksmerprome V, Senapin S and Rodkhum C. Naturally concurrent infections of bacterial and viral pathogens in disease outbreaks in cultured Nile tilapia (*Oreochromis niloticus*) farms. Aquac Res 2015;448:427-35.
- Dong TH, Gangnonngiw W, Phiwsaiya K, Charoensapsri W, Nguyen VV, Nilsen P, Pradeep PJ, Withyachumnarnkul B, Senapin S, Rodkhum C, et al. Duplex PCR assay and in situ hybridization for detection of *Francisella* spp. and *Francisella noatunensis* subsp. *orientalis* in red tilapia. Dis Aquat Org 2016;120:39-47.
- El-Sayed AFM. Tilapia culture. Cambridge [Internet]. 2006[cited 2018 Jan 15]. Available from: <https://www.gafrd.org/files/0084/84094/Tilapia%20culture.pdf>
- Ellis T, North B, & Scott A. The Relationship between stocking density and welfare in farmed rainbow trout. (T. F. isles, Ed.) J Fish Biol 2002;61:493-531.
- Espy MJ, Uhl JOR, Sloan LM, Buckwalter SP, Jones MF, Vetter EA, Yao JDC, Wengenack NL, Rosenblatt JE, Cockerill FR, Smith TF. Real-Time PCR in Clinical Microbiology: Applications for Routine Laboratory Testing. Clin Microbiol Rev 2006;19:165-256.
- Fernandez L, Prieto M, Guijarro JA. The iron-and temperature-regulated haemolysin YhlA is a virulence factor of *Yersinia ruckeri*. Microbiol;153:1413-16.
- Food and Agriculture Organization of the United Nations [Internet]. Cultured Aquatic Species Information Programme Seriola quinqueradiata; 2005 [cited 2017 August 23] Available from: [http://www.fao.org/fishery/culturedspecies/Oreochromis\\_niloticus/en](http://www.fao.org/fishery/culturedspecies/Oreochromis_niloticus/en)
- Food and Agriculture Organization of the United Nations [Internet]. Cultured Aquatic Species Information Programme Seriola quinqueradiata; 2008 [cited 2017 August 23] Available from: <http://www.fao.org/fishery/species/3217/en>
- Forsman M, Sandstrom G, Sjostedt A. Analysis of 16S ribosomal DNA sequences of *Francisella* stains and utilization for determination of the phylogeny of the genus and for identification of stains by PCR. Int J Syst Evol Microbiol 1994;44:38-46.
- Figueiredo HC, Klesius PH, Arias CR, Evans J, Shoemaker CA, Pereira DJ, Peixoto MT. Isolation and characterization of strains of *Flavobacterium columnare* from Brazil. J. Fish Dis 2005;28:199–204.

- Forsman M, Henningson EW, Larsson E, Johansson T, Sandstrom G. *Francisella tularensis* does not manifest virulence in viable but nonculturable state. FEMS Microbiol Ecol. 2000;31:217-24.
- Fukuda Y, Okamura A, Nishiyama M, Kawakami H, Kamaishi T, Yoshinga T. Granulomatosis of cultured three-line grunt *Parapristipoma trilineatum* caused by an intracellular bacterium. Fish Pathol 2002;37:119-24.
- Gauthier DT and Rhodes MW. Mycobacteriosis in fishes: A review. J Vet Res;180:33-47.
- Ghiraldelli L, Laterca MM, Barros AW, Yamashita M. First Record of *Trichodina compacta* Van As and Basson, (Protozoa: Ciliophora) from Cultured Nile Tilapia in the State of Santa Catarina, Brazil. *Integr Zool*. 1989;2(4):369–75.
- Gupta E, Bhalla P, Singh T. HISTOPATHOLOGY FOR the DIAGNOSIS OF INFECTIOUS DISEASES. Indian J Med Microbiol 2009;27:100-6.
- Herrera LC, Thorarensen H. The effect of stocking density on growth rate, survival and yield of GIFT tilapia (*Oreochromis niloticus*) in CUBA : case study fish farm LA Juventud. Fisheries training program 2014.
- Hrubec TC, Robertson JL, Smith SA, Tinker MK. The effect of temperature and water quality on antibody response to *Aeromonas salmonicida* in sunshine bass (*Morone chrysops* x *Morone saxatilis*). Vet Immunol 1996;50:157-66.
- Hsieh CY, Tung MC, Tu C, Chang CD, Tsai SS. Enzootics of visceral granulomas associated with *Francisella*-like organism infection in tilapia (*Oreochromis* spp.). Aquac 2006;254:129-38.
- Hsieh C, Wu ZB, Tung MC, Tsai SS. PCR and in situ hybridization for the detection and localization of a new pathogen *Francisella*-like bacterium (FLB) in ornamental cichlids. Dis Aquat Organ 2007;75:29-36.
- Jarp J, Gjedre A.G., Olsen A.B. and Bruheim T. Risk factors for furunculosis, infectious pancreatic necrosis and mortality in post-smolt of Atlantic salmon, *Salmo salar* L. J Fish Dis 1994;18:67-78.
- Jarp J. and Karlsen E. Infectious salmon anaemia(ISA) risk factors in sea-cultured Atlantic salmon *Salmo Salar*. Dis Aquat Organ 1997;28:79-86.
- Jansen PA, Matthews L, Toft N: Geographic risk factors for inter-river dispersal of *Gyrodactylus salaris* in fjord-systems in Norway. Dis Aquat Organ 2007;74:139-49.

- Jantrakajorn S, Wongtavatchai J. Francisella infection in Cultured Tilapia in Thailand and the Inflammatory Cytokine Response. *J Aquat Anim Health* 2016;28:97-106.
- Jeffery KR, Ston D, Feist SW, Verner-Jeffreys DW. An outbreak of disease caused by *Francisella* sp. in Nile tilapia *Oreochromis niloticus* at a recirculation fish farm in the UK. *Dis. Aquat Org* 2010;91:161–65.
- Kamaishi T, Miwa S, Goto E, Matsuyama. Mass mortality of giant abalone *Haliotis gigantean* caused by a *Francisella* sp. Bacterium. *Dis Aquat Organ* 2010;89:145-54.
- Karlsbakk E, Isaksen T, Ottem KF, Nylund A, Korsnes K, Nerland AH, Patel S, Bergh . Pathogens in the Coastal zone. The coast and aquaculture. Institute of marine research Norway. (in Norwegian) 2008.
- Karvonen A, Rintamaki P, Jokela J, Valtonen ET. Increasing water temperature and disease risk in aquatic system: climate change increase the risk of some, but not all disease. *Int J Parasitol*; 40:1483-88.
- Kayansamruaj P, Pirarat N, Hirono I, Rodkhum C. Increasing of temperature induces pathogenicity of *Streptococcus agalactiae* and the up-regulation of inflammatory related genes in infected Nile tilapia (*Oreochromis niloticus*). *Vet Microbiol* 2014;172:265–71.
- Khoo L, Dennis PM, Lewbart GA. *Rickettsia*-like Organisms in the Blue- Eyed Plecostomus, Panaque Suttoni (Eigenmann and Eigenmann). *J Fish Dis* 1995;18:157-63.
- Karvonen A, Rintamaki P, Jokela J, Valtonen ET. Increasing water temperature and disease risk in aquatic system: climate change increase the risk of some, but not all disease. *Int J Parasitol*; 40:1483-88.
- Kim SW, Roh J, Park CS. Immunohistochemistry for Pathologists: Protocols, Pitfalls, and Tips. *J Pathol Transl Med* 2016; 50:411-18.
- Klinger-Bowen R, Tamaru CS, McGovern-Hopkins K, Fox BK. Francisellosis in Tilapia. *PubMed* 2013;25:104-9.
- Leal, C.A, Tavares, G.C, Figueiredo, H.C. Outbreaks and genetic diversity of *Francisella noatunensis* subsp *orientalis* isolated from farm-raised Nile tilapia (*Oreochromis niloticus*) in Brazil. *Genet Mol Res* 2014;13:5704–12.
- Lebel P, Whangchai N, Chitmanat C, Promya J, Chaibu P, Sriyasak P, Lebel L. River-Based Cage Aquaculture of Tilapia in Northern Thailand : Sustainability of Rearing and Business Practices. *Scient Res* 2013;4:410-21.

- Lebel P, Niwooti W, Chitmanat C. Risk of impacts from extreme weather and climate in river-based tilapia cage culture in northern Thailand. *J Glo Warm* 2015;8:543-54.
- Lescenko P, Matlova L, Dvorska L, Bartos M, Vavra O, Navratil S, Novotny L, Pavlik I. Mycobacterial infection in aquarium fish. *Vet Med* 2003;3:71-8.
- Li Y, Cai SH. Identification and pathogenicity of *Aeromonas sobria* on tail-rot disease in juvenile tilapia *Oreochromis niloticus*. *Curr. Micro* 2011;62:623–27.
- Lindenstroem T, Nielsen B, Buchmann K. Gyrodactylids on salmonids from Danish streams. *Systematics and Phylogeny of Platyhelminthes* 1999;62-64.
- Marcos LM, Gale P, Oidtmann BC, Peeler EJ. Assessing the impact of climate change on disease emergence in freshwater fish in the United Kingdom. *Transbound Emerg Dis* 2010;57:293-304.
- Masser M P. Cage Culture: Cage Culture Problems. *Southern regional Aqua Cen* 2008;165;2.
- Mauel MJ, Miller DL, Frazier K, Liggett AD, Styler L, Montgomery-Brock D, Brock J. Characterisation of a *piscirickettsiosis*-like disease in Hawaiian tilapia. *Dis Aquat Organ* 2003;53:249-55.
- Mauel MJ, Miller DL, Styler E, Pouder DB, Yanong RP, Goodwin AE, Schwedler TE. Occurrence of *Piscirickettsiosis*-like syndrome in tilapia in the continental United States. *J Vet Diagn Invest* 2005;17:601-5.
- Mauel MJ, Soto E, Moralis JA, Hawke J. A *piscirickettsiosis*-like syndrome in cultured Nile tilapia in Latin America with *Francisella* spp. as the pathogenic agent. *J Aqua Anim Health* 2007;9:27-34.
- McInerney J. Old economics for new problems - livestock disease: presidential address. *J Agric Econ* 1996;47:295-314.
- Mereghetti L, Sitkiewicz I, Green NM, Musser JM. Remodeling of the *Streptococcus agalactiae* transcriptome in response to growth temperature. *PLoS One*;3:2785.
- Mikalsen J, Colquhoun DJ. *Francisella asiatica* sp. Nov. isolated from farmed tilapia (*Oreochromis* sp.) and elevation of *Francisella philomiragia* subsp. *noatunensis* to species rank as *Francisella noatunensis* comb. Nov. sp. *Int J Evol Microbiol* 2009.
- Mikalsen J, Olsen AB, Rudra H, Moldal T, Lund H, Djonne B, Bergh Ø, Colquhoun DJ. Virulence and pathogenicity of *Francisella philomiragia* subsp *noatunensis* for Atlantic cod, *Gadus morhua* L., and laboratory mice. *J Fish Dis* 2009;32:377-81.

- Neiffer DL and Stamper MA. Fish Sedation, Anesthesia, Analgesia, and Euthanasia: Considerations, Methods, and Types of Drugs. ILAR Journal 2009;50:343-58.
- Ndong D, Chen YY, Lin YH, Vaseeharan B, Vhen JC. The immune response of tilapia *Oreochromis mossambicus* and its susceptibility to *Streptococcus iniae* under stress in low and high temperature. Fish Shellfish Immunol 2007;22:686-94.
- Nielsen CV, Buchmann K. Occurrence of Gyrodactylus parasites in Danish fish farms. Bull Eur Assoc Fish Pathol 2001;21:19-25.
- Nylund A, Ottem KF, Watanabe K, Karlsbakk E, Krossoy B. *Francisella* sp. (Family Francisellaceae) causing mortality in Norwegian cod (*Gadus morhua*) farming. Arch Microbiol 2006;185:383-92.
- Nguyen V, Dong TH, Senapin S, Pirarat N, Rodkhum C. *Francisella noatunensis* subsp. *orientalis*, an emerging bacterial pathogen affecting cultured red tilapia (*Oreochromis* sp.) in Thailand. Aqua Res 2015;1-6.
- Olivares FO, Klesius PH, Evans J, Arias CR. Molecular typing of *Streptococcus agalactiae* isolates from fish. J. Fish Dis 2008;31:277-83.
- Olsen AB, Mikalsen J, Rode M, Alfjorden A, Hoel E, Straum-Lie K, Haldorsen R, Colquhoun DJ. A novel systemic Granulomatous inflammatory disease in farmed Atlantic cod, *Gadus morhua* L., associated with a bacterium belonging to the genus *Francisella*. J Fish Dis 2006;29:307-11.
- Ostland VE, Stannard JA, Creek JJ, Hedrick RP, Ferguson HW, Carlberg JM, Westerman ME. Aquatic *Francisella*-like bacterium associated with mortality of intensively cultured hybrid striped bass *Morone chrysops* x *M. saxatilis*. Dis Aquat Organ 2006;72:135-45.
- Ottem KF, Nylund A, Isaksen TE, Karlsbakk E, Bergh O. Occurrence of *Francisella piscicida* in farmed and wild Atlantic cod *Gadus morhua* L., in Norway. J Fish Dis 2008;31:525-34
- Otttem KF, Nylund A, Karlsbakk E, Friis-Moller A, Kamaishi T. Elevation of *philomiragia* subsp. *noatunensis* to *Francisella noatunensis* comb. nov. [syn. *Francisella piscicida* Otttem et al. (2008) syn. nov.] and characterization of *Francisella noatunensis* subsp. *orientalis* subsp. nov., two important fish pathogens. J Appl Microbiol 2009;106:1231-43.
- Peeler EJ, Feist SW, Longshaw M, Thrush MA, St-Hilaire S. An assessment of the variation in the prevalence of renal myxosporidiosis and hepatitis in wild brown trout, *Salmo trutta* L., within and between rivers in SouthWest England. J Fish Dis 2008;31:719-28.

- Peeler EJ, Taylor NG. The application of epidemiology in aquatic animal health-opportunities and challenges. *Vet res* 2011;42.
- Picker, M.D. & Griffiths, C.L. Alien and Invasive Animals – A South African Perspective. Randomhouse/Struik, Cape Town, South Africa 2011.
- Piumsombun, S. Analysis of demand for fish consumed at home in Thailand. *Thai Fisheries Gazette* 2003;56:113-21.
- Pridgeon JW, Klesius PH. Development and efficacy of novobiocin and rifampicin-resistant *Aeromonas hydrophila* as novel vaccines in channel catfish and Nile tilapia. *Vaccine* 2011;29:7896–904.
- Quiros R. The relationship between fish yield and stocking density in reservoir from Tropical and Temperates Regions. (J. Tundisi, & M. Straskaba, Eds.) Brasil, Brasil: International Institute of Ecology, Brazilian Academy of Sciences 1999.
- Rodrigues MV, Francisco CJ, David GS, Silva RJ, Falcone-Dias MF, Junior JPA. Monitoring of *Francisella noatunensis* subsp. *orientalis* in farmed Nile tilapia (*Oreochromis niloticus*) in Brazil. *Aquacult Int* 2018;26:127–38.
- Ronald N, Gladys B, Gasper E. The Effects of Stocking Density on the Growth and Survival of Nile Tilapia (*Oreochromis niloticus*) Fry at Son Fish Farm, Uganda. *J Aquac* 2014;5:4-7.
- Schikorski D, Faury N, Pepin JF, Saulnier D, Tourbiez D, Renault T. Experimental ostreid herpesvirus 1 infection of the Pacific oyster *Crassostrea gigas*: Kinetics of virus DNA detection by q-PCR in seawater and in oyster samples. *Virus Res* 2011;155:28-34.
- Sebastiao FA, Pilarski F, Kearney MT, Soto E. Molecular detection of *Francisella noatunensis* subsp.*orientalis* in cultured Nile tilapia (*Oreochromis niloticus* L.) in three Brazilian states. *J Fish Dis* 2017;40:1731-35.
- Shoemaker CA, Evans JJ, Klesius PH. Density and dose: factors affecting mortality of *Streptococcus iniae* infected tilapia (*Oreochromis niloticus*). *Aquaculture* 2000;188:229–35.
- Sjösted A. Genus I *Francisella* Dorofe'ev 1947, 176al. Bergey's Manual of Systematic Bacteriology. The Proteobacteria 2005;2:200-10.
- Silveira R. La sequía en la acuicultura cubana. REDVET. Revista electrónica de Veterinaria, 11(03B),20101695-7504. [December 2014]  
<http://www.veterinaria.org/revistas/redvet/n030310B.html>

- Soto E, Abrams SB, Revan F. Effects of temperature and salt concentration on *Francisella noatunensis* subsp. *orientalis* infections in Nile tilapia *Oreochromis niloticus*. Dis Aquat Org 2012;101:217-23.
- Soto E, Baumgartner W, Wiles J, Hawke JP. *Francisella asiatica* as the causative agent of piscine Francisellosis in cultured tilapia (*Oreochromis* spp.) in the United States. J Vet Diagn Invest 2011;23:821-5.
- Soto E, Bowles D, Fernandez D, Hawke JP. Development of a real-time PCR assay for identification and quantification of the fish pathogen *Francisella noatunensis* subsp. *orientalis*. Dis Aquat Organ 2010;89:199-207.
- Soto E, Hawke JP, Fernandez D, Morales JA. *Francisella* sp., an emerging pathogen of tilapia, *Oreochromis niloticus* (L.), in Costa Rica. J Fish Dis 2009;32:713-22.
- Soto E, Bowles K, Fernandez, Hawke JP. Development of a real-time PCR assay for identification and quantification of the fish pathogen *Francisella noatunensis* subsp. *orientalis*. Dis Aquat Org 2010;89:199-207.
- Soto-Rodriguez SA, Cabanillas-Ramos J, Alcaraz U, Gomez-Gil B, Romalde JL.. Identification and virulence of *Aeromonas dhakensis*, *Pseudomonas mosselii* and *Microbacterium paraoxydans* isolated from Nile tilapia, *Oreochromis niloticus*, cultivated in Mexico. J Appl. Microbiol 2013;115:654–62.
- Soto E, Illanes O, Hilchie D, Morales J, Sunyakumthorn P, Hawke JP, Goodwin AE, Subasinghe RP. et al. Epidemiological approach to aquatic animal health management: opportunities and challenges for developing countries to increase aquatic production through aquaculture. Prev Vet Med 2005;67:117-24.
- Soto E, Illanes O, Hilchie D, Morales JA, Sunyakumthorn P, Hawke JP, Goodwin AE, Riggs A, Yanong RP, Pouder DB, Francis-Floyd R, Arauz M, Bogdanovic L, Castillo-Alcala F. Molecular and immunohistochemical diagnosis of *Francisella noatunensis* subsp. *orientalis* from formalin-fixed, paraffin-embedded tissues. J Vet Diagn Invest 2012;24:840–845.
- Soto E, Illanes O, Hilchie D, Morales JA, Sunyakumthorn P, Hawke JP, et al. Molecular and immunohistochemical diagnosis of *Francisella noatunensis* subsp. *orientalis* from formalin-fixed, paraffin-embedded tissues. J Vet Diagn Invest. 2012;24:840–5
- Talaat AM, Trucksis M, Kane AS, Reimschuessel R. Pathogenicity of *Mycobacterium fortuitum* and *Mycobacterium smegmatis* to goldfish, *Carassius auratus*. Vet Mic 1999:151-64.

- Tendencia AE, Bosma HR, Verreth JAJ. WSSV risk factors related to water physico-chemical properties and microflora in semi-intensive *Penaeus monodon* culture ponds in the Philippines. Aquac 2010;302:87-93.
- Tendencia AE, Bosma HR, Verreth JAJ. White spot syndrome virus(WSSV) risk factors associated with shrimp farming practices in polyculture and monoculture farms in the Philippines. Aquac 2011;31:164-68.
- Thorburn MA. Factors influencing seasonal vibriosis mortality rates in Swedish pen reared rainbow trout. Aquac 1987;67:79-85.
- Thorud K, Djupvik H. Infectious salmon anaemia in Atlantic salmon (*Salmo salar* L.). Bull Eur Assoc Fish Pathol 1988;8:109-11.
- Tort L. Stress and immune modulation in fish. Dev Comp Immunol 2011;35:1366-75.
- Trewavas E. Tilapiine Fishes of the Genera Sarotherodon, *Oreochromis* and *Danakilia*. British Museum (Natural History), London, UK 1983.
- Wahli T, Bernet D, Steiner PA, Schmidt-Posthaus H. Geographic distribution of *Tetracapsuloides bryosalmonae* infected fish in Swiss rivers. Aquat Sci 2007;69:3-10.
- Walker PJ, Mohan CV. Viral disease emergence in shrimp aquaculture: origins, impacts and the effectiveness of health management strategies. Rev Aquac 2009;1:125-54.

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่  
Copyright© by Chiang Mai University  
All rights reserved