

國立東華大學教師個人基本資料表

最高學歷/起迄：Ohio State University 博士/2003/12

現職/起迄：國立東華大學 教授 2017/12 起迄今

國立海洋生物博物館 副研究員 2012/04

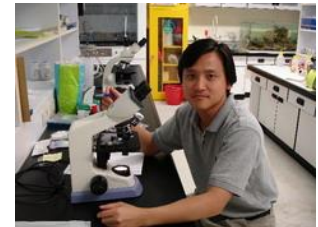
研究領域：浮游植物生態、附著藻生態

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張桂祥

TEW Kwee Siong



■研究

研究成果（2000～）

一、期刊論文：

1. **Tew, K.S.***, Siao, Y.-J., Liu, P.-J., Lo, W.-T. and Meng, P.-J. 2017. Taiwanese marine microbenthic algal communities remain similar yet chlorophyll a concentrations rise in mesocosms with elevated CO₂ and temperature. *Marine Pollution Bulletin*. 124: 929-937. <https://doi.org/10.1016/j.marpolbul.2017.06.050>
2. **Tew, K.S.***, Jhange, Y.-S., Meng, P.-J. and Leu, M.-Y. 2017. Environmental factors influencing the proliferation of microscopic epiphytic algae on the giant kelp under aquarium conditions. *Journal of Applied Phycology*. 29(6): 2877-2886. Doi: 10.1007/s10811-017-1148-9. (Online 2017-05-16)
3. Chen, C.-C., **Tew K.S.**, Ho, P.-H., Ko, F.C., Hsieh, H.-Y.,* and Meng, P.-J.*. 2017. The impact of two oil spill events on the water quality along coastal area of Kenting National Park, Southern Taiwan. *Marine Pollution Bulletin*. 124: 974-983. Doi: 10.1016/j.marpolbul.2017.02.034.
4. Meng, P.-J., **Tew K.S.**, Hsieh, H.-Y. and Chen, C.-C.* 2016. Relationship between magnitude of phytoplankton blooms and rainfall in a hyper-eutrophic lagoon: A continuous monitoring approach. *Marine Pollution Bulletin*. 124: 897-902. <http://dx.doi.org/10.1016/j.marpolbul.2016.12.040>. (Online 2016-12-21)
5. **Tew, K.S.***, Chang, Y.-C., Meng, P.-J., Leu, M.-Y., and Glover, D. C. 2016. Towards sustainable exhibits- application of an inorganic fertilization method in coral reef fish larviculture in an aquarium. *Aquaculture Research* 47: 2748-2756. DOI: 10.1111/are.12725.

6. Pasaribu, B., Li, Y.-S., Kuo, P.-C., Lin, I-P., **Tew, K.S.**, Tzen, J.T.C., Liao, Y.K., Chen, C.-S. and Jiang, P.-L.*. 2016. The effect of temperature and nitrogen deprivation on cell morphology and physiology of *Symbiodinium*. *Oceanologia* 58(4): 272-278. <http://dx.doi.org/10.1016/j.oceano.2016.04.006>.
7. Leu, M.-Y., Li, J.-J., Ju, Y.M., Hsiao, C.-M., Chang, C.-W., Meng, P.-J., **Tew, K.S.*** and Wang, W.-H. 2015. Transportation, husbandry, and release of whale sharks (*Rhincodon typus*). *Journal of Marine Science and Technology* 23: 814-818.
8. Meng, P.-J., Lee, H.-J., **Tew, K.S.**, and Chen, C.-C.* 2015. Effect of a rainfall pulse on phytoplankton bloom succession in a hyper-eutrophic subtropical lagoon. *Marine and Freshwater Research* 66: 60-69. <http://dx.doi.org/10.1071/MF13314>.
9. **Tew, K.S.**, Han, C.-C.*, Glover, D.C. and Chen, Y.-K. 2014. Decapod community structure in a subtropical mountain stream in Taiwan before and after a catastrophic typhoon. *Crustaceana* 87: 1281-1295.
10. **Tew, K.S.***, Kao, Y.-C., Ko, F.-C., Kuo, J., Meng, P.-J., Liu, P.-J. and Glover, D.C. 2014. Effects of *elevated* CO₂ and temperature on the growth, elemental composition, and cell size of two marine diatoms: potential implications of global climate change. *Hydrobiologia* 741: 79-87. DOI: 10.1007/s10750-014-1856-y.
11. **Tew, K.S.**, Meng, P.-J.*, Glover, D. C., Wang, J.-T., Leu, M.-Y. and Chen, C.-C.* 2014. Characterizing and predicting algal blooms in a subtropical coastal lagoon. *Marine and Freshwater Research* 65: 191-197. <http://dx.doi.org/10.1071/MF13029>
12. Kuo, J., **Tew, K.S.***, Ye, Y.-X., Cheng, J.-O., Meng, P.-J., and Glover, D. C. 2014. Picoplankton dynamics and picoeukaryote diversity in a hyper-eutrophic subtropical lagoon. *Journal of Environmental Science and Health, Part A* 49(1): 116-124.
13. **Tew, K.S.**, Leu, M.-Y., Wang, J.-T., Chang, C.-M., Meng, P.-J.* and Chen, C.-C.* 2013. A continuous, real-time water quality monitoring system for the coral reef ecosystems of Nanwan Bay, Southern Taiwan. *Marine Pollution Bulletin*. <http://dx.doi.org/10.1016/j.marpolbul.2013.11.022>.
14. **Tew, K.S.***, Meng, P.-J., Lin, H.-S., Chen, J.-H. and Leu, M.-Y. 2013. Experimental evaluation of inorganic fertilization in larval giant grouper (*Epinephelus lanceolatus* Bloch) production. *Aquaculture Research* 44: 439-450. DOI:10.1111/j.1365-2109.2011.03051.x
15. Leu, M.-Y., Meng, P.-J., **Tew, K.S.**, Kuo, J. and Hung, C.-C. 2012. Spawning and development of larvae and juveniles of the Indian Ocean oriental sweetlips, *Plectorhinchus vittatus* (Linnaeus, 1758), in the aquarium. *Journal of the World Aquaculture Society* 43: 595-606.
16. Wang, J.-T., Chen, Y.-Y., **Tew, K.S.**, Meng, P.-J., Chen, C.A. 2012. Preparation of aposymbiotic corals with comparable physiological and biochemical performance to their symbiotic counterparts. *PLoS ONE* 7(9): e46406. (Doi:10.1371/journal.pone.0046406)

17. Wang, Y.-P., **Tew, K.S.***, Kuo, J., Ko, F-C, Meng, P.-J. 2012. The effect of coral polyp sizes and coral exudates on picoeukaryote dynamics in a controlled environment. *Scientia Marina* 76: 455-461.

18. **Tew, K.S.***, Meng, P.-J. and Leu, M.-Y. 2012. Factors correlating with deterioration of giant kelp *Macrocystis pyrifera* (Laminariales, Heterokontophyta) in an aquarium setting. *Journal of Applied Phycology* 24: 1269-1277 DOI: 10.1007/s10811-011-9775-z

19. Ko, F-C., Baker, J.E., **Tew, K.S.** 2012. Kinetics of polychlorinated biphenyl partitioning to marine Chrysophyte *Isochrysis galbana*. *Science of the Total Environment* 416: 410-417.

20. Chou, W.R., Fang, L.S., Wang, W.H., and **Tew, K.S.***. 2012. Environmental influence on coastal phytoplankton and zooplankton diversity: A multivariate statistical model analysis. *Environmental Monitoring and Assessment* 184: 5679-5688 DOI: 10.1007/s10661-011-2373-3.

21. Han, C.C., Chang, C.S., Cheng, I.M. Fang, L.S., and **Tew, K.S.***. 2011. Population dynamics of a landlocked and amphidromous freshwater shrimp, *Caridina gracilipes* (Caridea, Decapoda) in subtropical waters. *Journal of Crustacean Biology* 31: 278-285.

22. Leu, M.- Y. , Meng, P.-J., Huang, C.-S., **Tew, K.S.**, Kuo, J. and Liou, C.-H. 2010. Spawning behavior, early development, and first feeding of the bluestriped angelfish [*Chaetodontoplus septentrionalis* (Temminck & Schlegel, 1844)] in captivity. *Aquaculture Research* 41:e39-e52.

23. **Tew, K.S.***, Meng, P.J., Lee, H.J., Ye, Y.X., Kuo, J., Fang, L.S., and Chou, W.R. 2010. Dynamics of phytoplankton and picoplankton over a tidal cycle in a subtropical lagoon. *Chinese Science Bulletin* 55: 2522-2528.

24. Chiou, S-F., Kuo, J., Wong, T-Y., Fan, T-Y., **Tew, K.S.**, and Liu, J-K. 2010. Analysis of the coral associated bacterial community structures in healthy and diseased corals from off-shore of southern Taiwan. *J. of Environmental Science and Health, Part B* 45: 408-415.

25. Hsieh, W.C., Lee H.J., **Tew, K.S.***, Lin, C., Fan K.S. and Meng, P.J. 2010. Estimating nutrient budgets in a coastal lagoon. *Chinese Science Bulletin* 55: 484-492.

26. **Tew, K.S.**, J.D. Conroy, and D.A. Culver. 2010. The importance of phosphorus and copper carryover in pond sediments for juvenile percid survival, growth, and yield. *North America Journal of Aquaculture* 72: 22-33.

27. **Tew, K.S.**, Chou, W-R., Chuang, S-F., He, C-C., Liao, J-H. and Fang, L-S. 2008. Comparison of the decapod communities in an anthropogenic impacted lagoon and its adjacent coastal waters. *Hydrobiologia* 607:1-10.

28. Meng, P-J., Lee, H-J., Wang, J-T., Chen, C-C., Lin, H-J., **Tew, K.S.** and Hsieh, W-J. 2008. A long-term survey on anthropogenic impacts to the water quality of coral reefs, southern Taiwan. *Environmental Pollution* 106: 67-75.

29. Han, C.C., **Tew, K.S.**, and Fang, L.S. 2007. Spatial and temporal variations of two cyprinids in a subtropical mountain reserve- a result of habitat disturbance. *Ecology of Freshwater Fish* 16: 395-403.
30. **Tew, K.S.**, Conroy, J.D., and Culver, D.A. 2006. Effects of lowered inorganic phosphorus fertilization rates on pond production of percid fingerlings. *Aquaculture* 255: 436-446.
31. **Tew, K.S.** and Lo, W.T. 2005. Distribution of Thaliacea in coastal waters of southwestern Taiwan in 1997, with a special reference to the three dominant species, *Doliolum denticulatum*, *Thalia democratica* and *T. orientalis*. *Marine Ecology-Progress Series* 292: 181-193.
32. **Tew, K.S.**, Han, C-C., Chou, W-R. and Fang, L-S. 2002. Habitat and fish fauna structure in a subtropical mountain stream in Taiwan before and after a catastrophic typhoon. *Environmental Biology of Fishes* 4: 457-462.
33. Chou, W-R., **Tew, K.S.** and Fang, L-S. 2002. Long term monitoring of the demersal fish community in a steel-slag disposal area in the coastal waters of Kaohsiung, Taiwan. *ICES Journal of Marine Science* 59: S238-S242.
34. Fang, L-S., Chen, I-S., **Tew, K.S.**, Han, C-C., Lee, T-F. and Chen, I-M. 2002. Impact of the 1999 earthquake on mountain stream fishes in Taiwan. *Fisheries Science* 68: 446-448.
35. Han, C.-C., **Tew, K.S.**, Chen, I-S., Su, L-Y. and Fang, L-S. 2000. Environmental biology of an endemic cyprinid, *Varicorhinus alticorpus*, in a subtropical mountain stream of Taiwan. *Environmental Biology of Fishes* 59: 153-161.

二、研討會論文：

2017

Kwee Siong Tew* and Pi-Jen Liu. 2017. The effects of increasing CO₂ concentrations and temperature on microalgal assemblages in mesocosm. The 19th International Symposium on Pollutant Responses in Marine Organisms. 29 June ~ 4 July, 2017, Matsuyama, Japan.

張桂祥、蕭鈺潔、劉弼仁、羅文增、孟培傑。2017。全球暖化對珊瑚礁海域附著微細藻之影響-中觀生態缸實驗。2017年海洋科學年會。台北，台灣。4-5 May 2017。

劉弼仁、Awaluddin Khaerul、洪靜、陳穎萱、蕭鈺潔、李承錄、**張桂祥**、周文臣、林幸助。2017。海草床是否有助於減緩海洋酸化、營養鹽輸入及暖化對珊瑚生態系的影響。2017年海洋科學年會。台北，台灣。4-5 May 2017。

Kwee Siong Tew, Fung-Chi Ko, Chih-Wei Chang, Pi-Jen Liu, Hung-Yen Hsieh. 2017.

Comparison of phytoplankton assemblages in Dongsha Island lagoon during flood and ebb tides. South China Sea Science Conference 3-8 June, 2017. Kaohsiung, Taiwan.

Kwee Siong Tew* and Ang-Ko Li. 2017. The higher the better? Application of an inorganic fertilization method in coral reef fish larviculture. The 7th Cross Strait Coral Reef Conference. 19~23, 2017, Checheng, Taiwan.

2016

Kwee Siong Tew*, Siao Y.J., Lo W.T and Liu P.J. 2016. The effect of global warming on periphyton in coral reef ecosystem. 8th International Conference on Marine Pollution and Ecotoxicology. 19-25, June 2016, Hong Kong, China.

Kwee Siong Tew*, Yu-Sin JHange, Pei-Jie Meng, Ming-Yih Leu. 2016. Increase in temperature enhance the proliferation of epiphytic microalgae on the giant kelp under aquarium conditions. The 23rd Pacific Science Congress. 13-17, June 2016, Taipei, Taiwan.

2015

Kwee Siong Tew*, Pei-Jie Meng, Ming-Yih Leu. 2015. Application of an inorganic fertilization method in coral reef fish larviculture. 39th Annual Larval Fish Conference. 12-17, July 2015, Vienna, Austria.

2014

Kwee Siong Tew*, Pi-Jen Liu. Effects of increased temperature and CO₂ on growth and species composition of marine benthic algae- a mesocosm study. The 3rd Asia-Pacific Coral Reef Symposium. 23-27, June 2014, Pingtung, Taiwan.

2013

Kwee Siong Tew*, Ching-Yi Chen, Wen-Been Chang, Pei-Jie Meng, and Ming-Yih, Leu. Experimental evaluation of inorganic fertilization in larval orange-spotted grouper (*Epinephelus coioides*) production. 9th Indo-Pacific Fish Conference (IPFC9), 24 -28, June 2013, Okinawa, Japan.

Chen-Hua Chen, Pei-Jie Meng, **Kwee Siong Tew** and Ming-Yih Leu*. Natural spawning and early life history of the palette surgeonfish, *Paracanthurus hepatus* (Linnaeus, 1766) in captivity. 9th Indo-Pacific Fish Conference (IPFC9), 24 -28, June 2013, Okinawa, Japan.

Yu-Chen Kao, **Kwee Siong Tew***. Effects of increased temperature and CO₂ on growth and elemental concentration of marine benthic diatoms. International Conference on Challenges in Aquatic Sciences, 15-21, March 2013, Keelung, Taiwan.

Kwee Siong Tew, Pei-Jie Meng*, David C. Glover, Jih-Terng Wang, Ming-Yih Leu, Chung-Chi Chen. Characterizing and predicting algal blooms in a subtropical coastal lagoon. International Conference on Challenges in Aquatic Sciences, 15-21, March 2013, Keelung, Taiwan.

三、其他著作或專利：

專書

1. 張桂祥。2011。海水酸化- 海洋生物與人類將同受其害。In: 海洋危機與轉機-新時代永續海洋新觀點。高雄市政府海洋局出版。pp.64-69。
2. 張桂祥。2010。海洋微生物。In: 海洋生命科學導論。教育部顧問室海洋教育先導型計畫辦公室。pp.92-101。
3. 張桂祥。2009。海洋生物多樣性- 毀於嚴重的暖化危機。In: 海洋新契機－節能減碳·綠能革命。高雄市政府海洋局出版。 pp.68-74。

四、三年內之研究計畫 (2003.8~2006.7)：

起迄年月	研究計畫名稱	主持人/共同主持人	計畫經費	補助單位
2017/08~ 2018/7	二氧化碳、溫度、及營養鹽 升高對珊瑚礁海域附著微細 藻之影響-中觀生態缸實驗 (II)(106-2611-M-291 -003)	主持人		科技部
2016/08~ 2017/7	二氧化碳、溫度、及營養鹽 升高對珊瑚礁海域附著微細 藻之影響-中觀生態缸實驗 (105-2611-M-291-006-)	主持人		科技部
2015/08~ 2016/7	全球暖化對珊瑚礁海域附著 微細藻之影響-中觀生態缸實 驗(II)(104-2611-M-291-002-)	主持人		科技部



■ 教學

五、三年內開授課程：

學年度	課程名稱(必/選)	選修人數

六、三年內指導研究生狀況：

學年度	碩士班(人)	博士班(人)	畢業人數	
			碩士	博士



■ 服務

七、三年內校內校、院、系(所、科及中心)各級公共事務參與：

年月	校/院/系級	項目

八、三年內專業學術服務工作項目：

年月	校內/校外	項目



■ 教學與研究獎勵

九、三年內之教學與研究獎勵事蹟：

學年度	校內/校外	項目
104	校內	國立東華大學 104 學年度校級優良導師