***Isochrysis zhanjiangensis* H.-J.Hu & H.-R.Liu (*Isochrysidaceae*, Haptophyta): clarification of the name of a commercially valuable alga**

Michael D. Guiry, *AlgaeBase, Ryan Institute, NUI Galway, Galway, H91 TK33, Ireland.*

Cao Xupeng, *Marine BioEngineering Group, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 457 Zhongshan Road, Dalian 116023, China.*

Two orthographic variants of the epithet for the commercially important haptophytan unicell *Isochrysis zhanjiangensis* are apparent in the recent literature: '*zhanjiangensis'* (e.g., Zheng *et al*. 2011) and '*zhangjiangensis*' (e.g., Wu *et al.* 2015). We here examine which of these variants is in accordance with the original description and its publication in accordance with the rules of the ICN (McNeill *et al*. 2012).

Isochrysis zhanjiangensis H.-J.Hu & H.-R.Liu was first effectively published by H.-J.Hu & H.-R.Liu in H.-J.Hu, S.-H.Lu & H.-R.Liu (2007: 112, '*zhanjiangensisi*') in *Acta Oceanologica Sinica* 2007(1): 112. The original paper, although in Chinese, included a Latin description, and designated the pls I-IV as the type ('Type Photos and Figs **:**Plat **,** 1 ～ 8.'). The designation of an illustration is permitted by ICN Art. 40.5:

> "40.5. For the purpose of Art. 40, the type of a name of a new species or infraspecific taxon of microscopic algae or microfungi (fossils excepted: see Art. 8.5) may be an effectively published illustration if there are technical difficulties of preservation or if it is impossible to preserve a specimen that would show the features attributed to the taxon by the author of the name."

The use of the word "type" for such a designation is in accordance with Art. 40.6. The name thus meets the prevailing requirements of the ICN for valid publication. In the title of the paper the spelling '*zhanjiangensis*' is used and on p. 29 the spelling '*zhanjiangensisi*' is clearly a *lapsus* for *zhanjiangensis*'. The authorities are cited above the Latin description as 'H.-J.Hu & H.-R.Liu' but in the English summary (Hu *et al.* 2007: 114) as 'H. J. Hu , S H Lü et H. R. Liu' [sic]. We have adopted the authorities as given with the description.

The type locality is given by Hu *et al*. (2007: 29) as 'Habitat**:** along the coast in south three island of Zhanjiang of Guangdong Province.' The English summary gives 'Nansan Island of Zhanjiang of Guangdong Province, China' as the source of the isolate. This clearly refers to the maritime city of Zhanjiang (湛 江) in the south-west of Guangdong Province, China, which was known as Fort Bayard during its occupation by France in the late 19th century. On the other hand, Zhangjiang (张 江) is a town located in the Pudong District of Shanghai, China. The closeness in spelling of the two transliterated place names in has led to the unintended (but incorrect) change in the orthography of the epithet.

Isochrysis zhanjiangensis has proved to be a good model for the study of lipid production under nutrient-depletion stresses for next-generation biofuel production (e.g., Feng *et al.* 2011; Wang *et al.* 2015), as well as a source of polyunsaturated fatty acids, such as docosahexaenoic acid (DHA); it is also an important larval feed for marine aquaculture production in China.

Feng, D.N., Chen, Z.A., Xue, S. & Zhang W. (2011). Increased lipid production of the marine oleaginous microalgae *Isochrysis zhangjiangensis* (Chrysophyta) by nitrogen supplement. *Bioresource Technology* 102(12): 6710-6716.

Hu, H.-J., Jr, Lü, S.-H. & Liu, H.-R. (2007). [A new species of *Isochrysis* (Isochrysidales) - *I. zhanjiangensis* and its observation on the fine structure.] *Acta Oceanologica Sinica* 2007(1): 111-119, pls I-IV. [In Chinese]

McNeill, J., Barrie, F.R., Buck, W.R., Demoulin, V., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Prado, J., Prud'homme van Reine, W.F., Smith, G.F., Wiersema, J.H. & Turland, N.J. (2012). *International Code of Nomenclature for algae, fungi and plants (Melbourne Code)* adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011 Regnum Vegetabile, Vol. 154. pp. [i]-xxx, 1-208. Königstein: Koeltz Scientific Books.

Wang, H.T., Meng, Y.Y., Cao, X.P., A.I., Zhou J.N., Xue, S & Wang, W.L. (2015). Coordinated response of photosynthesis, carbon assimilation, and triacylglycerol accumulation to nitrogen starvation in the marine microalgae *Isochrysis zhangjiangensis* (Haptophyta). *Bioresource Technology* 177: 282-288.

Wu, S., Zhou,JN., Xin, YJ. & Xue, S. (2015). Nutritional stress effects under different nitrogen sources on the genes in microalga *Isochrysis zhangjiangensis*. *Journal of Phycology* 51(5): 885-895.

Zheng, J., Hao, J.M., Wang, B. & Shui, C. (2011). Bioremediation of aquaculture wastewater by microalgae *Isochrysis zhanjiangensis* and production of the biomass material. *Key Engineering Materials* 460-461: 491-495.