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A scientific name for Pacific oysters

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Dear Editor,

We write concerning the scientific name for the Pacific oyster used by *Aquaculture*. An article in the 1 October issue (Ugalde et al. 2018) presents the binomial for the Pacific oyster as “*Magallana gigas*, previously known as *Crassostrea gigas*,” citing Salvi et al. (2014).

The suggestion by Salvi et al. (2014) and Salvi and Mariottini (2017) that the genus *Crassostrea*, as applied to cupped oysters of Pacific origin (e.g., *Crassostrea gigas*, the Pacific oyster), be replaced by the genus *Magallana* has been greeted with dismay by researchers and aquaculturists alike. Bayne et al. (2017) have recently published a short dissenting view, calling the suggestion “disruptive and destabilizing.”

The World Register of Marine Species (WoRMS) initially disseminated the proposed genus change. On receipt of our “dissenting view,” WoRMS re-instated *Crassostrea* but in a way that, we believe, confuses the situation. WoRMS now describes *Crassostrea* (as of 25 July 2018) as an “alternate representation,” which it defines as “an accepted name...but slightly less preferred.” The basis for this ‘preference’ is not clear, but its assertion is not a scientific resolution of the taxonomic conflict for this important aquaculture species.

We anticipate that the majority of researchers will continue to refer to the Pacific oysters as *Crassostrea*. Indeed, since Salvi and Mariottini (2017), only 11 papers in 10 journals have used *Magallana gigas*, while over 700 papers in over 200 journals used *Crassostrea gigas* (Web of Science). Nevertheless, there is potential for confusion to spread among researchers, including young scientists who are publishing for the first time.

We ask that you require manuscripts submitted for publication to use *Crassostrea* as the accepted genus for all Pacific and Atlantic cupped oysters, until a more detailed and comprehensive genomic analysis resolves the correct nomenclature. In the interim, this conservative taxonomic usage will help to avoid misunderstanding, anxiety and disorder.

References:

- Bayne, B.L. and 26 co-authors. 2017. The proposed dropping of the genus *Crassostrea* for all Pacific cupped oysters and its replacement by a new genus *Magallana*: a dissenting view. *Journal of Shellfish Research* 36(3), 545-547.
- Salvi, D., Macali, A., Mariottini, P., 2014. Molecular phylogenetics and systematics of the bivalve family Ostreidae based on rRNA Sequence-Structure Models and Multilocus Species Tree Associated Data. *PLOS ONE*, 9, Article Number: e108696.
- Salvi, D., Mariottini, P., 2017. Molecular taxonomy in 2D: a novel ITS 2 rRNA sequence structure approach guides the description of the oysters’ subfamily Saccostreinae and the genus *Magallana* (Bivalvia: Ostreidae). *Zoological Journal of the Linnean Society* 179, 263-276.
- Ugalde, S.C., Preston, J., Ogiera, E., Crawford, C., 2018. Analysis of farm management strategies following herpesvirus (OsHV-1) disease outbreaks in Pacific oysters in Tasmania, Australia. *Aquaculture* 495, 179–186.