# In this issue

Kyle Capistrant-Fossa and
Susan H. Brawley

**Unexpected reproductive traits of *Grateloupia turuturu* revealed by its resistance to bleach-based biosecurity protocols**

https://doi.org/10.1515/bot-2018-0104
Botanica Marina 2019; 62(2): 83–96

**Research article:** Cystocarps of *Grateloupia turuturu* survived bleach-treatment with 50 ppm (50 mg $l^{-1}$) free chlorine for 2 h.

**Keywords:** free chlorine measurement; heat-treatment; hypochlorite; non-indigenous species; red algae.

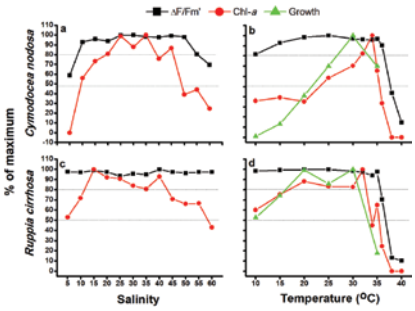
Soultana Tsioli, Sotiris Orfanidis, Vasilis Papathanasiou, Christos Katsaros and Athanasios Exadactylos

**Effects of salinity and temperature on the performance of *Cymodocea nodosa* and *Ruppia cirrhosa*: a medium-term laboratory study**

https://doi.org/10.1515/bot-2017-0125
Botanica Marina 2019; 62(2): 97–108

**Research article:** The thermal optima and tolerances of growth and photosynthesis confirm the seasonal patterns and indicated *Ruppia cirrhosa* as vulnerable to climate change. The sensitivity of *Cymodocea nodosa* to low salinities and temperatures may explain its absence from shallow coastal lagoons.

**Keywords:** benthic macrophytes; chlorophyll fluorometry; factorial experiments.




Kelcie L. Chiquillo, Paul H. Barber and Demian A. Willette

**Fruits and flowers of the invasive seagrass *Halophila stipulacea* in the Caribbean Sea**

https://doi.org/10.1515/bot-2018-0052
Botanica Marina 2019; 62(2): 109–112

**Short communication:** This is the first report of fruit-bearing *Halophila stipulacea* in the Caribbean.

**Keywords:** Caribbean; *Halophila stipulacea*; introduced species; seagrass; sexual reproduction.

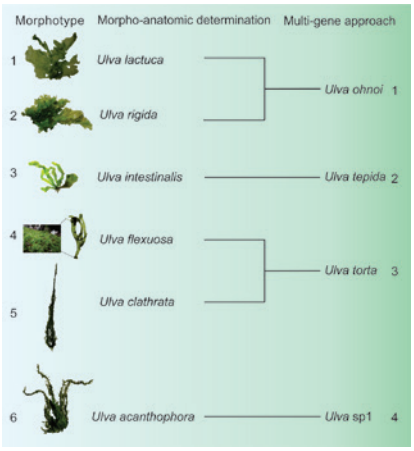
Tonatiuh Chávez-Sánchez, Alejandra Piñón-Gimate, James T. Melton III, Juan Manuel López-Bautista and Margarita Casas-Valdez

**First report, along with nomenclature adjustments, of *Ulva ohnoi*, *U. tepida* and *U. torta* (Ulvaceae, Ulvales, Chlorophyta) from northwestern Mexico**

https://doi.org/10.1515/bot-2018-0007
Botanica Marina 2019; 62(2): 113–123

**Research article:** Examining morphological and anatomical characters, eight bloom-forming *Ulva* species were identified in Mexico, but a multi-gene approach reduced these to three genetically distinct species, *Ulva ohnoi*, *U. tepida*, *U. torta*, and an as yet undescribed species *Ulva* sp. 1.

**Keywords:** bloom-forming *Ulva*; cryptic diversity; DNA sequencing; morpho-anatomical observations; multi-gene approach.



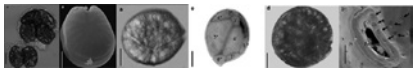

Maria Cristina de Queiroz Mendes, José Marcos de Castro Nunes, Santiago Fraga, Francisco Rodríguez, José Mariano Franco, Pilar Riobó, Suema Branco and Mariângela Menezes

**Morphology, molecular phylogeny and toxinology of *Coolia* and *Prorocentrum* strains isolated from the tropical South Western Atlantic Ocean**

https://doi.org/10.1515/bot-2018-0053
Botanica Marina 2019; 62(2): 125–140

**Research article:** Studies of two strains of *Coolia* (*C. malayensis* and *C. tropicalis*) and *Prorocentrum emarginatum* collected off the coast of northeastern Brazil have addressed the morphology, phylogenetics and toxin production of these dinoflagellates.

**Keywords:** *Coolia malayensis*; *Coolia tropicalis*; hemolytic assay; LC-HRMS; *Prorocentrum emarginatum*.

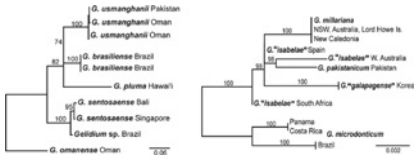


D. Wilson Freshwater and Laila Shahnaz
**Phylogenetic relationships of Pakistan *Gelidium* (Gelidiales, Rhodophyta) species with recognition of *Gelidium pakistanicum stat. nov.***

https://doi.org/10.1515/bot-2018-0121
Botanica Marina 2019; 62(2): 141–147

**Short communication:** DNA sequence analyses verify an expanded distribution for the formerly Pakistan endemic *Gelidium usmanghanii* and elevate *Gelidium pusillum* var. *pakistanicum* to the rank of species as *Gelidium pakistanicum*.

**Keywords:** COI-5P barcode; *G. pusillum* var. *pakistanicum*; *Gelidium usmanghanii*; *rbc*L; taxonomy.



Wilfred John E. Santiañez and Kazuhiro Kogame
**Proposals to recognize *Petalonia tenella* comb. nov. and to resurrect *Hapterophycus canaliculatus* (Scytosiphonaceae, Phaeophyceae)**

https://doi.org/10.1515/bot-2018-0077
Botanica Marina 2019; 62(2): 149–153

**Short communication:** Taxonomic revisions are proposed in the Scytosiphonaceae by transferring *Scytosiphon tenellus* to *Petalonia* (i.e. *Petalonia tenella* comb. nov.) and by reinstating *Hapterophycus canaliculatus*, a species currently classified in *Scytosiphon*.

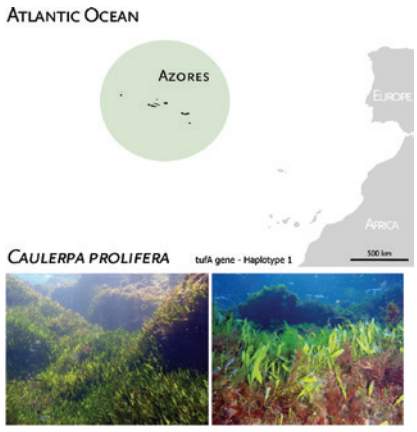
**Keywords:** brown algae; *cox*3; molecular phylogeny; *Scytosiphon*; taxonomy.


Eva Cacabelos, João Faria, Gustavo M. Martins, Carles Mir, Manuela Isabel Parente, Daniela Gabriel, Rocío Sánchez, María Altamirano, Ana Cristina Costa, Willem Prud'homme van Reine and Ana Isabel Neto
**First record of *Caulerpa prolifera* in the Azores (NE Atlantic)**

https://doi.org/10.1515/bot-2018-0075
Botanica Marina 2019; 62(2): 155–160

**Short communication:** A range expansion of *Caulerpa prolifera* in Atlantic waters through its recent occurrence in the Azores is reported.

**Keywords:** macroalgae; oceanic islands; range expansion; rockpool.



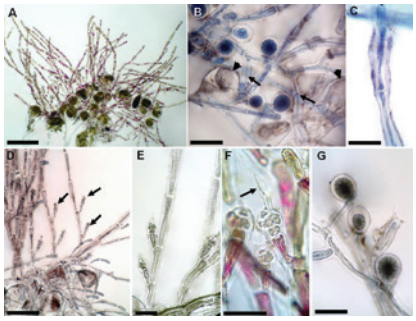
Ghizlane Salhi, Mustapha Hassoun, Hanaa Moussa, Hanaa Zbakh, Mohamed Kazzaz and Hassane Riadi

**First record of the red alga *Tiffaniella gorgonea*: an introduced species in the Mediterranean Sea**

https://doi.org/10.1515/bot-2017-0129
Botanica Marina 2019; 62(2): 161–165

**Short communication:** An alien red alga *Tiffaniella gorgonea* is reported for the first time from the Moroccan Mediterranean coast; this record represents an introduced species in the Mediterranean Sea.

**Keywords:** first report; Mediterranean Sea; Morocco; taxonomy; *Tiffaniella gorgonea*.



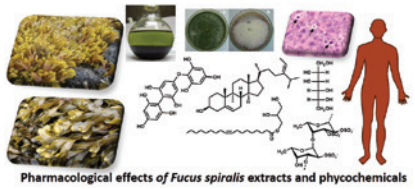

Gonçalo P. Rosa, Maria Carmo Barreto and Ana M.L. Seca

**Pharmacological effects of *Fucus spiralis* extracts and phycochemicals: a comprehensive review**

https://doi.org/10.1515/bot-2018-0047
Botanica Marina 2019; 62(2): 167–178

**Review:** A comprehensive review of the pharmacological effects of *Fucus spiralis* extracts and its phycochemicals is presented. The discussed studies show the great potential of this alga, but future research should be focused on deeper phycochemical studies.

**Keywords:** biological activities; extracts; fucosterol; *Fucus spiralis*; mannitol.




Stefan Sebök, Werner B. Herppich and Dieter Hanelt

**Outdoor cultivation of *Ulva lactuca* in a recently developed ring-shaped photobioreactor: effects of elevated $CO_2$ concentration on growth and photosynthetic performance**

https://doi.org/10.1515/bot-2018-0016
Botanica Marina 2019; 62(2): 179–190

**Research article:** Identifying potentials and limits of a ring-shaped cultivation vessel and characterizing the impact of $CO_2$ enrichment from exhaust gas on photosynthetic activity and biomass productivity of *Ulva lactuca* to facilitate the large-scale, on-land production of macroalgae.

**Keywords:** biomass production; closed cultivation; fluorescence quenching; land-based culture; seaweed.