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PG-7 **Two dinoflagellate taxa, *Durinskia* (Peridiniales, Dinophyceae) and *Goniodoma* (Gonyaulacales, Dinophyceae) from Okinawa, Japan**

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Dinoflagellates have attracted much attention in research as they are often associated with ciguatera poisoning and other related toxic phenomena in subtropical to tropical coastal areas. Hence, the complete taxonomic description of different potential toxic and nontoxic dinoflagellates is important. The present research has been conducted with the aim to describe the taxonomy of different dinoflagellate taxa from Okinawa, Japan. Among our isolated strains, we have been focusing on the two taxa, *Durinskia* and *Goniodoma* to confirm their taxonomic and phylogenetic status as both of genera have not been well described previously. Based on light microscopy, *Durinskia* strain's cells are round to ovoid, measuring 15 to 24.4 μm length, 13.1 to 23.8 μm width with a conspicuous, bright red, large and rectangular eyespot. The thecal plate arrangement (Po, x, 4′, 2a, 6˝, 5c, 4s, 5˝′, 2˝˝) of this species is similar to that of *D. baltica* and *D. capensis*. Based on cell shape, size, eyespot, cingular displacement, nucleus (eukaryotic and dinokaryon), and thecal plate arrangements, the present strain is placed within the genus *Durinskia*. The genus *Durinskia* currently has two species, *D. baltica* and *D. capensis*. SSU rDNA sequences indicate that this strain is distinct from *D. baltica* and *D. capensis* by 26 and 53 basepair substitutions, respectively. In case of *rbc*L gene sequence analysis, the present *Durinskia* strain formed same clade with other endosymbionts and showed genetic differences compared to *D. baltica* and *D. capensis*. These results suggest that this strain is distinct from the two known species and constitute a potentially undescribed species of *Durinskia*.

The *Goniodoma* strain's cells consist of thick thecal plates with many trichocysts pours. Cells are spherical to hemispherical in shape and slightly shorter than wide. Cell size ranges from 48 to 64 μm in length and 51to 67 μm in wide. The cell size and shape agree with *G. polyedricum*. However, no *Goniodoma* sequence data is available so far for SSU rDNA or other DNA sequences. The preliminary analysis of SSUrDNA sequences shows that the present strain of *Goniodoma* is closely related to the sequence from *Alexandrium tamutum*. *Alexandrium* is very similar to *Goniodoma* but differs in size, thickness, size and shape of thecal plates. Further detailed studies to confirm the species and taxonomic position of the present *Goniodoma* strain are being carried out based on morphology and molecular phylogeny.