The investigation was carried out on one sample from Kirishima Heights, southern Japan. The epilithic diatoms were collected and the *Gomphonema christensenii* and *Gomphonema clevei* were flourishing. Light photomicrograph of almost 200 valves of *G. christensenii* were analyzed. The form of the valves and the forms of the axial and central areas were similar to the original description by Lowe & Kociolek, though we observed only few apiculate types in our specimens. Regarding the striae at the central area, the arrangement of the striae was not necessarily perpendicular to the raphe in our specimens and thus differs from the original description. The valve length, breadth and the density of striae in 10μm were mostly coincident with the original description.

**Key index words**

*Gomphonema christensenii* R.L. Lowe & Kociolek, Kirishima Heights (Japan), morphological variability, valve morphology