



***Actinocyclus nevadensis*, a new name for the Miocene fossil *Actinocyclus nebulosus* Bradbury & W.N.Krebs (Hemidiscaceae, Bacillariophyta)**

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During a survey of species in the genus *Actinocyclus* Ehrenberg, the Miocene fossil *Actinocyclus nebulosus* Bradbury & W.N.Krebs was encountered (Bradbury & Krebs 1995: 11, pl. 11: figs 2-8, pl. 12: fig. 1, “Esmeralda Formation near Black Spring, Nye County, Nevada”, holotype: USNM 465540, see also Krebs & Bradbury 1995: 58). Bradbury & Krebs remarked on another fossil species named as ‘*Coscinodiscus nevadensis*’, described earlier by Smedman (1969: 7, fig. 3), noting that “... she failed to designate a type specimen, slide, or a repository” (Bradbury & Krebs 1995: 11) the designation was thus invalid, so a replacement name was required, hence their new name *Actinocyclus nebulosus*. Bradbury & Krebs, however, failed to notice the earlier use of the same name by Maurice Peragallo for an extant marine species: *Actinocyclus nebulosus* M. Peragallo (in Peragallo & Peragallo 1902: 416, pl. 113: figs 10, 11, ‘Villefranche’ as ‘*A. (Ralfsii* var.?) *nebulosus*’ in the legend to plate 113).

Both have valves with a pseudonodulus and so are referable to the *Hemidiscaceae* Hendey ex Hasle (in Hasle & Syvertsen 1996: 339), and both are (currently) species of the genus *Actinocyclus*. Interestingly, any currently available internet search-engine finds both names being used in almost equal numbers, even though some synonymise *Actinocyclus nebulosus* M. Peragallo with *Actinocyclus ehrenbergii* Ralfs. *Actinocyclus nebulosus* Bradbury & W.N.Krebs as a later homonym is illegitimate and thus requires a new name:

Actinocyclus nevadensis D.M.Williams, *nom. nov.*

Replaced name: *Actinocyclus nebulosus* Bradbury & W.N.Krebs *United States Geological Survey Professional Paper* (1543 A), p. 11, pl. 11, figs 2-8, pl. 12, fig. 1, 1995, *nom. illeg. non* *Actinocyclus nebulosus* M.Peragallo, 1902.

Registration: <http://phycobank.org/103825>

Type: USA, ‘Esmeralda Formation near Black Spring, Nye County, Nevada’ ‘loc. 93 = USGS Denver 26 XII 86-2A. sec. 19, T.8N., R.38E’, *E.D. Bergstrom* (see Krebs & Bradbury 1995: 64) ‘USNM 465540’, holotype; CAS 216056, isotype.

Synonym: *Coscinodiscus nevadensis* Smedman 1969: 7, fig. 3, *nom. inval.* (‘Samples from Buffalo Canyon section PI’, ‘Buffalo Canyon situated about eight miles southeast of Eastgate, Nevada, on U. S. Highway 50’, Smedman 1969: 3).

Note: There are two slides indexed for ‘*Actinocyclus nevadensis*’ in the California Academy of Science, diatom collection ([CAS](#)), one of which would probably have been the intended holotype (original material) of ‘*Coscinodiscus nevadensis*’ if it had been assigned: CAS 1023014, ‘Buffalo Canyon, south of Eastgate, Nevada [...] D.I. Axelrod’.

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Bradbury, J.P. & Krebs, W.N. (1995). *Actinocyclus* (Bacillariophyta) species from Lacustrine Miocene deposits of the Western United States. *United States Geological Survey Professional Paper* (1543 A):1-[49].

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