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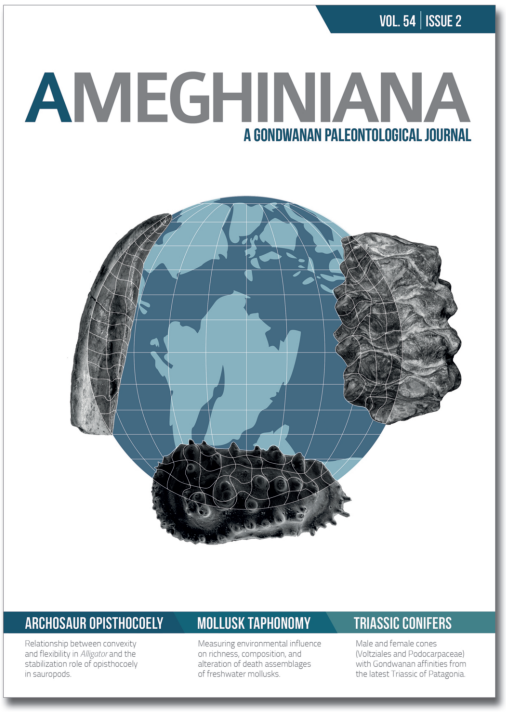

A NEW NAME FOR *BAIERA TAENIATA* GEINITZ, *GINKGO TAENIATA* (GEINITZ) FRENGUELLI, AND *SPHENOBAIERA TAENIATA* (GEINITZ) MOREL, GANUZA AND ZÚÑIGA

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A NEW NAME FOR *BAIERA TAENIATA* GEINITZ, *GINKGO TAENIATA* (GEINITZ) FRENGUELLI, AND *SPHENOBAIERA TAENIATA* (GEINITZ) MOREL, GANUZA AND ZÚÑIGA

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Key words. *Baiera triassica* nom. nov. *Baiera taeniata. Ginkgo taeniata. Sphenobaiera taeniata.* Paso Flores Formation. Triassic. Argentina.

Baiera taeniata Braun, 1843 was erected to encompass ginkgoalean leaves from the Jurassic strata of Germany. Harris (1935) made a new combination, *Ginkgoites taeniata* (Braun) from the Liassic of Greenland, while Dobruskina (1985) named specimens from the Upper Triassic of Asia *Ginkgoites taeniatus* (Braun) Harris. This taxon (*B. taeniata, G. taeniata, G. taeniatus*) is characterized by normal-size leaves with a rather slender petiole and lobes with irregularly notched apices, whereas for the smallest leaves a short and wide petiole and a nearly entire lamina are the main diagnostic features (*cf.* Harris, 1935).

Geinitz (1876) studied several fragmentary specimens from the Upper Triassic strata of Argentina and identified one specimen as *Baiera taeniata* from levels of the Marayes locality, San Juan Province, Argentina.

Later on, Frenguelli (1937, p. 86–87) studied materials from the Paso Flores Formation, Neuquén Province (Patagonia) and proposed *Ginkgo taeniata* Geinitz, 1876, considering as synonymous only the specimens recorded as *Baiera taeniata* Geinitz from Argentina ("...Argentinischen Prov., pag. 8, lam. 2, fig. 19 [1876]; Rhaetic Plants, pag. 341, lam. 2, fig. 10 [1921]; non *Baiera taeniata* Fr. Braun, in Münster, Beiträge, VI, pag. 21 [1843]..."). Furthermore, Frenguelli (1937) stated that the impressions collected from the Triassic of the Paso Flores and the Marayes formations are different from the Laurasian specimens (*Baiera taeniata* Braun) in view of the fact that their foliage lamina is divided into numerous "lacinias" (= segments). Thus, he assigned the Argentinian specimens to the genus *Ginkgo* but he used the same specific epithet, naming them *Ginkgo taeniata* (Geinitz) Frenguelli. On the other hand, Morel *et al.* (1999) described the Paso Flores ginkgoalean leaves and proposed a new combination with the genus *Sphenobaiera* because the specimens lacked petiole and assigned those specimens to *S. taeniata* (Geinitz) Morel, Ganuza and Zúñiga.

Moreover, the specimens identified by Braun (1843) as *Baiera taeniata* were later analyzed by Harris (1935), Dobruskina (1985), Zhou *et al.* (2007) and Pacyna (2013), and transferred to the genus *Ginkgoites* (*Baiera taeniata* Braun= *Ginkgoites taeniata* (Braun) Harris= *Ginkgoites taeniatus* (Braun) Harris).

The specific epithets of *Baiera taeniata* Geinitz, 1876, *Ginkgo taeniata* (Geinitz) Frenguelli, 1937 and *Sphaenobaiera taeniata* (Geinitz) Morel, Ganuza and Zúñiga, 1999 are illegitimate according to Articles 53 and 58 of the International Code of Nomenclature for algae, fungi, and plants (ICN, McNeill *et al.*, 2012), because they are homonyms of *Baiera taeniata* Braun and *Ginkgoites taeniata* (Braun) Harris. In

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addition, as neither Frenguelli (1937) nor Morel *et al.* (1999) provided a specific diagnosis or identification of the holotype, and in conformity with Arts. 32 and 41 of the ICN (McNeill *et al.*, 2012), the names "*G. taeniata* Geinitz " and "*S. taeniata* Geinitz" are illegitimate and therefore not validly published. On the other hand, *B. taeniata* Braun and *Ginkgoites taeniata* (Braun) Harris were validly published by Braun (1843) and emended by Harris (1935) and Dobruskina (1985). Thus, both names are homonyms and have been applied to two unrelated fossil species. Hence, for the Argentinian specimens requiring a new name we hereby propose the name *Baiera triassica* and we provide a holotype designation.

Institutional abbreviation. **MCF-PBPH,** Paleontological Collection of the Museo Municipal "Carmen Funes", Plaza Huincul, Neuquén, Argentina.

SYSTEMATIC PALEONTOLOGY

Order GINKGOALES Gorožankin, 1904

Genus ***Baiera*** Braun, 1843

Type species. *Baiera muensteriana* (Presl in Sternberg, 1833) Heer, 1876.

Baiera triassica nom. nov.

Replaced names. *Baiera taeniata* Geinitz, 1876 (lam. 2, fig. 10), *Ginkgo taeniata* (Geinitz) Frenguelli, 1937 (fig. 3, lam. 3, fig. 8) and *Sphenobaiera taeniata* (Geinitz) Morel *et al.*, 1999 (p. 398–399; fig. 5f.) nom. illeg. non *Baiera taeniata* Braun, 1843; non *Ginkgoites taeniata* (Braun) Harris, 1935; non *Ginkgoites taeniatus* (Braun) Harris (*sensu* Dobruskina, 1985).

Derivation name. Referring to the Period in which the genus was a common component of the paleofloras.

Holotype. MCF-PBPH 063. Cañadón de Pancho locality, Paso Flores Formation.

Paratype. MCF-PBPH 417a–b. Cañadón de Pancho locality, Paso Flores Formation.

Other materials. See Geinitz (1876), Frenguelli (1937) and Morel *et al.* (1999).

Locality. Cañadón de Pancho section, western area of the Collón Curá River, south of the Neuquén Province, Argentina.

Stratigraphic position. Upper section of the Paso Flores Formation (late Upper Triassic).

Stratigraphic distribution. Neuquén Province, Paso Flores Formation (Neuquén Basin); San Juan Province, Carrizal Formation (Marayes Basin).

Diagnosis. Leaves petiolate, symmetrical and triangular in outline, basal angle usually 60°–70°, petiole slender. The deeply dissected lamina (first incision near the base of the lamina) is symmetrically divided up to three times, into narrow segments (less than 0.5 cm wide). The terminal segments present a rounded apex with a maximum of four veins.

Description, comments and figures. As in Gnaedinger and Zavattieri (2017).

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REFERENCES

Braun, C.F.W. 1843. Beiträge zur Urgeschichte der Pflanzen. *Beiträge zur Petrefactenkunde* 6: 1–33.

Dobruskina, I.A. 1985. The Madygen Flora (USSR, Middle Asia) as a typical representative of Keuper floras. *3° Congreso Latinoamericano de Paleontología y Simposio sobre floras del Triásico Tardío, su fitogeografía y paleoecología* (México), *Actas*: 11–19.

Frenguelli, J. 1937. La flórula Jurásica de Paso Flores en el Neuquén, con referencias a la de Piedra Pintada y otras floras jurásicas argentinas. *Revista del Museo de La Plata (Nueva Serie) 1. Paleontología* 3: 67–108.

Geinitz, H.B. 1876. Üeber Rhätische Pflanzen und Thierreste in den argentinischen Provinzen La Rioja, San Juan und Mendoza. Beiträge zur Geologie und Paläontologie der Argentinischen Republik. II. Paläontologischer Theil. II. Abtheilung. *Palaeontographica Supplementbände* 3: 1–14.

Gnaedinger, S.C., and Zavattieri, A.M. 2017. First record of voltzialean male cone (*Lutanthus*) and podocarpacean female cone (*Rissikistrobus*) from the late Triassic of Argentina, including new plant remains of the Paso Flores Formation. *Ameghiniana* 54: 224–246.

Gorozhankin, I.N. [Gorožankin, I.N.]. 1904. *Lectures on the morphology and systematics of plants archegonial. Pteridophyta u Archispermae. Ferns and simple seed.* Mamontov, Moscow, 104 p. [in Russian. Горожанкин И. Н. 1904 Лекциипо морфологии и систематике архе-

гониальных растений. Pteridophyta u Archispemae. Папоротникообразные и простейшие семенные. 104 p.].

Harris, T.M. 1935. The fossil flora of Scoresby Sound, East Greenland. Part 4: Ginkgoales, Coniferales, Lycopodiales and isolated fructifications. *Meddelelserom Grønland* 112: 1–176.

Heer, O. 1876. Beiträge zur Jura-Flora Ostsibiriens und des Amurlandes. *Memoires de l'Académie Impériale des Sciences de St. Pétersbourg 7ème Série* 22: 1–122.

McNeill, J., Barrie, F.R., Buck, W.R., Demoulin, V., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Marhold, K., Prado, J., Prud'homme van Reine, W.F., Smith, G.F., Wiersema, J.H., and Turland, N.J. (Eds.). 2012. *International Code of Nomenclature for algae, fungi, and plants (Melbourne Code): adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011*. Koeltz Scientific Books, Königstein, 208 p.

Morel, E.M., Ganuza, D.G., and Zúñiga, A. 1999. Revisión paleoflorística de la Formación Paso Flores, Triásico superior de Río Negro y del Neuquén. *Revista de la Asociación Geológica Argentina* 54: 389–406.

Pacyna, G. 2013. Critical review of research on the Lower Jurassic flora of Poland. *Acta Palaeobotanica* 53: 141–163.

Sternberg, W.P. 1833. *Versuch einer geognostisch-botanischen Darstellung der flora der Vorwelt.* Band 2, Heft 5-6. Johann Spurny, Prag, 80 p.

Zhou, Z., Zheng, S., and Zhang, L. 2007. Morphology and age of *Yimaia* (Ginkgoales) from Daohugou Village, Ningcheng, Inner Mongolia, China. *Cretaceous Research* 28: 348–362.

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