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Recent changes in the taxonomy of Agaocephalini

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The monophyly of Agaocephalini has long been questioned because of the high degree of morphological variation among agaocephaline genera (Ratcliffe, 2003; Neita-Moreno & Ratcliffe, 2019; Pardo-Locarno et al., 2020; Choi et al., 2023; Sobral et al., 2026). Adults of Agaocephalini are generally characterized as medium-sized, suboval, slightly flattened, and lacking a stridulatory area on the propygidium (Ratcliffe, 2003; Endrődi, 1985). However, common diagnostic characteristics of Agaocephalini have been difficult to identify. In this article, recent changes in the taxonomy of Agaocephalini are summarized.

Although the known species diversity of Agaocephalini has increased steadily, the increase has been particularly notable in recent decades. Of the 58 species currently listed under Agaocephalini in the Catalogue of Life, 16 were described in the 21st century. Species of *Colacus* Ohaus are excluded from Table 1 because the genus has recently been removed from Agaocephalini (Table 1).

Genus	Species	Author	Year
Aegopsis	*diceratops*	Sobral & Grossi	2018
	vazdemelloi	Sobral & Grossi	2018
Agaocephala	*alvarengai*	Sobral, Duarte & Grossi	2026
	mineira	Sobral, Duarte & Grossi	2026
Lycomedes	*bubeniki*	Milani	2017
	enigmaticus	Neita-Moreno & Ratcliffe	2019
	lydiae	Arnaud	2012
	salazari	Pardo-Locarno, Villalobos-Moreno & Stechauner	2015
Minisiderus	*benjamini*	Abadie	2014
	bertolossiorum	Abadie, Godinho & Koike	2016
	elyanae	Dechambre	2006
	martinae	Abadie	2010
	mielkeorum	Grossi & Grossi	2005

Table 1. Recently described taxa in Agaocephalini.

Two subtribes, Agaocephalina and Lycomedina

Sobral et al. (2026) established two new subtribes within Agaocephalini. Agaocephalina is composed of *Aegopsis* Burmeister, *Agaocephala* Le Peletier de Saint-Fargeau & Audinet-Serville, *Lycocephala* Martínez & Alvarenga, *Minisiderus* Endrődi, and *Mitracephala* Thomson. Lycomedina is composed of *Antodon* Brême, *Brachysiderus* Waterhouse, *Horridocalia* Endrödi, *Lycomedes* Brême, and *Spodistes* Burmeister.

Aegopsis Burmeister, 1847

Aegopsis is rare in entomological collections, possibly reflecting its apparent rarity in the wild. Until Dechambre and Grossi rediscovered *A. bolboceridus* (Thomson) in 1990, this species was known only from the single holotype specimen (Dechambre & Grossi, 1990). The same authors transferred *A. bolboceridus* from *Agaocephala* to *Aegopsis*. The fact that *A. bolboceridus* is now considered a pest is interesting (De Oliveira et al., 2008).

A. westwoodi Thomson was synonymized with *A. curvicornis* Burmeister by Ratcliffe (2003). Although Endrődi (1985) listed *A. westwoodi* in his book, he described the species as "very closely related to *A. curvicornis,*" and noted that its "paramera identical with those of *A. curvicornis*." In 2018, two more species, *A. diceratops* Sobral & Grossi and *A. vazdemelloi* Sobral & Grossi, were described by Sobral et al. (2018). Sobral (2018) revised only the *Aegopsis bolboceridus* species group, which is distributed in Brazil. Therefore, more discoveries in northern South America and Central America are anticipated.

Agaocephala Le Peletier de Saint-Fargeau & Audinet-Serville, 1828

The type genus of Agaocephalini, *Agaocephala*, is distinctive for the metallic sheen on its head, pronotum, and legs. The most recently described species of *Agaocephala* was *A. margaridae* until recently. More than 60 years after the description of *A. margaridae*, two new species were discovered. Sobral et al. (2026) described two new species, *A. alvarengai* Sobral, Duarte, & Grossi and *A. mineira* Sobral, Duarte, & Grossi. *Agaocephala alvarengai* is particularly interesting because this species had formerly been identified as *A. urus* Thomson. After examination of the holotype of *A. urus*, the authors found that it was actually *A. mannerheimi* Laporte. *Agaocephala urus* is now a synonym of *A. mannerheimi*.

Another interesting taxonomic change in Sobral et al. (2026) is the new combination of *Lycocephala brasiliana* Martínez & Alvarenga. This extremely rare species has several peculiar characters, notably its tomentose elytra. The genus *Lycocephala* was originally described as a subgenus of *Agaocephala*. Finally, the authors considered *A. melolonthida* Thomson *incertae sedis* within Dynastinae. *Agaocephala melolonthida* is truly an "urban legend," as Sobral et al. (2026) described it.

Brachysiderus Waterhouse, 1881

After Endrődi (1970) treated *B. breyeri* (Martínez) as a synonym of *B. tridentiger*, and *B. tridentiger* as a subspecies of *B. quadrimaculatus* Waterhouse, *B. tridentiger* was regarded either as a subspecies or a synonym of *B. quadrimaculatus* (Ratcliffe et al., 2020). Later, Pardo-Locarno et al. (2025) treated *B. tridentiger* as a valid species, following the suggestion of Sobral and Grossi (2023). Further discoveries and taxonomic revisions are anticipated within this genus.

Colacus Ohaus, 1910, *Democrates* Burmeister, 1847, and *Gnathogolofa* Arrow, 1914

While Agaocephalini gained one genus, *Lycocephala*, it lost three others. *Colacus*, *Democrates*, and *Gnathogolofa* had long been distinctive genera within Agaocephalini. Endrődi (1985) suggested that these three genera were closely related to Cyclocephalini, whereas Sobral and Grossi (2023) proposed transferring them to Pentodontini. In Choi and Troya (2026), the authors proposed a preliminary grouping of the genera of Agaocephalini. Based on the morphology of the parameres and endophalli, *Colacus*, *Democrates*, and *Gnathogolofa* formed a distinct group separated from the remaining Agaocephalini.

Ratcliffe et al. (2025) transferred *Colacus* and *Democrates* to Pentodontini, as suggested by Sobral and Grossi (2023). Sobral et al. (2026) subsequently removed all three genera from Agaocephalini and treated them as *incertae sedis* at the tribal level. The authors apparently refrained from placing them in Pentodontini because the monophyly of Pentodontini itself remains uncertain. Despite this problem, the three genera may tentatively be placed in Pentodontini. *Piscoperus*, a Peruvian genus formerly placed in Pentodontini, was synonymized with *Colacus* by Ratcliffe et al. (2025).

Lycomedes Brême, 1844

More than a hundred years passed after the description of *L. ohausi* Arrow in 1908 before another new species was added to *Lycomedes*. *Lycomedes lydiae* Arnaud was the first species of the genus described in the 21st century. It was synonymized with *L. reichei* Brême by Neita-Moreno and Ratcliffe (2019), but was later revalidated by Pardo-Locarno et al. (2025).

Lycomedes burmeisteri Waterhouse was reported from Ecuador along with a new species, *L. bubeniki*, by Milani (2017). *Lycomedes enigmaticus* Neita-Moreno & Ratcliffe was originally described based only on minor males. Major males of *L. enigmaticus* were later reported by Pardo-Locarno et al. (2020, 2025), Choi et al. (2023), and Sobral and Grossi (2023).

Minisiderus Endrődi, 1970

Species now placed in *Minisiderus* were included in *Brachysiderus* for a long time. Milani

(2019) elevated the subgenus *Minisiderus* to genus rank, separating the two groups. Two species, *M. elyanae* Dechambre and *M. mielkeorum* Grossi & Grossi, were described from specimens collected in Maranhão, Brazil, which represents the northernmost known distribution of *Minisiderus*. *Minisiderus martinae* Abadie was described from Bolivia and became the first and only species of the genus known from outside Brazil.

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