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The material of *Cricetodon albanensis* (Rodentia, Cricetodontinae) from La Grive-Saint Alban (carrière Milliat, fissure M) is described in detail for the first time. This species is a large sized Cricetodontinae that is characterized by having incomplete ectolophs and indistinct or very short mesolophs on the upper molars and by the presence of double metalophids and the absence of mesolophids on the lower molars. The acquisition of a dominant anterior metalophulid on the m1 has been developed independently in different lineages over time and could be related to a change in dietary habits towards more abrasive food, which may be linked to the cooling event Mi3 (circa 13.8 Ma). However, the development of this character does not seem to have been enough to prevent these Middle Miocene European cricetodontines to become extinct, while their more evolved European competitors (*Hispanomys*) flourished.

Keywords: *Cricetodon albanensis*, Rodentia, Cricetodontinae, Miocene, France, Systematics

Introduction

La Grive-Saint-Alban is the name used to refer to various Upper Aragonian pits located on the territory of the municipality of Saint-Alban-de-Roche (Isère, France) (Mein and Ginsburg, 2002). All pits have yielded micromammals, but remains of *Cricetodon albanensis* have only been found in La Grive L (pit Lechartier) and M (pit Milliat) (Maridet, 2003). As related in López-Antoñanzas and Mein (2009, 2011), in 1887, Depéret revealed the presence of two taxa of *Cricetodon* in La Grive Saint-Alban: *C. medium* and *C. rhodanicum* (Depéret 1887a, 1887b). In 1925, Schaub revised the myomorph cricetine rodents and he included all the large-sized *Cricetodon* species from the Upper Aragonian (Sansan, La Grive Saint-Alban, swiss Molasa, Ries) in the species *Cricetodon sansaniensis* Lartet, 1851. In this work he synonimized *C. rhodanicus* with *C. sansaniensis* because the former taxon could be differentiated neither by the morphology nor by the size with the latter one (Schaub, 1925:9). Moreover, during the revision of the material of *C. sansaniensis* housed in the Museum of Lyon, he identified the presence of two morphotypes for *Cricetodon sansaniensis* from La Grive Saint-Alban: the first one, slightly larger and with less developed ectolophs (*Cricetodon sansaniensis*) and the smaller one, with better developed ectolophs (*Cricetodon sansaniense* var. *decedens*) (Schaub, 1925:13). In 1963, Freudenthal pointed out that *Cricetodon sansaniensis* from La Grive Saint-Alban should be reallocated to *C. rhodanicus*. After that, Mein and Freudenthal (1971b) erected the new species *Cricetodon albanensis* on the basis of a right mandible with m1-m3 (65484) from La Grive M (pit Milliat). The large sized *Cricetodon* material from La Grive Saint-Alban (pit M and pit L7) has been considered

as belonging to this species. No additional material of this taxon has been recovered up to date.

Mein and Freudenthal's (1971b) work dealt with a whole revision and a new classification of the European tertiary cricetid record. Thus nor description neither comparisons nor photographs of the material of *Cricetodon albanensis* could be provided but merely a brief diagnosis. Therefore, the aim of the present work is to offer a detailed description, an extended and differential diagnosis of this taxon.

Material and Methods

The systematic study presented below is based on the examination of original specimens listed in Tab. 1. The material described here comes from La Grive Saint-Alban and it is housed in the Naturkunde Museum of Berlin. It includes a number of osseous (from the cranial and postcranial skeleton) and dental remains (Figs 1-2). The present work focuses on the latter. They are:

MB. Ma. 27835: 3 maxillae with M1-M3 (specimen labelled as *Cricetodon minus*); MB. Ma. 27827: left hemi-mandible with m1-m3 (specimen labelled as *Cricetodon rhodanicus*); MB. Ma. 27829: 2 hemi-mandibles with m1-m3; 1 hemi-mandible with m2-m3 and a maxillary fragment with M2-M3, MB. Ma. 27828: 1 hemi-mandible with m1-m3 and 1 hemi-mandible with m1-m2, MB. Ma. 27831: 2 maxillary fragments with M2; 1 maxillary fragment with M1-M2; 1 maxillary fragment with M1; 1 maxillary fragment without teeth and 3 isolated teeth (1M1 and 2M2) (specimens labelled as *Cricetodon sansaniensis)*; MB. Ma. 27848: 2 isolated m1, MB. Ma. 27850: 8 isolated teeth (a broken M1, 1 M3, 1m1, 2m2 and 3m3, MB. Ma. 27849: 6 isolated M1 (specimens labelled as Cricetidae indet).

The measurements of the occlusal surface of the teeth (maximum length and maximum width) have been taken following van de Weerd (1976) for all dental elements except for the

second upper molars, for which the maximum length has been taken parallel to the labial side of the tooth. Measurements have been obtained with a Nikon digital counter CM-6S measuring device and descriptive statistics were calculated using Microsoft Excel 2016 (Tab. 2).

First, second, and third lower molars are designed as m1, m2, and m3 respectively whereas first, second, and third upper molars as M1, M2, and M3. The terminology used in the tooth descriptions follows the rodent dental terminology of López-Antoñanzas et al. (2010).

Systematics

Family Cricetidae Fischer, 1817

Tribu Cricetodontini Simpson, 1945

Genus *Cricetodon* Lartet, 1851

Cricetodon albanensis Mein and Freudenthal 1971b (Figs. 1 and 2)

Diagnosis: Size similar to *C. sansaniensis* but with ectolophs slightly more developed; mandible slightly more oblique than the latter species so that the mental foramen is hidden in vertical view; diastema slightly concave; mesolophid absent; metalophulid always anterior; M1 four-rooted (translated from Mein and Freudenthal, 1971b).

Emended diagnosis: *Cricetodon* species of large size, brachyodont cheek teeth with thick and crenulated enamel and third lower and upper molars not reduced in size; upper molars with low cingula surrounding the labial valleys, incomplete ectolophs and very short or indistinct mesolophs; lower molars with complete metalophulid I and usually incomplete metalophulid II and without mesolophid.

Differential diagnosis: *Cricetodon albanensis* differs from all the Middle Miocene species of *Cricetodon* in having an indistinct posteroloph on the M3 and from all but *C. sansaniensis*, *C. jumaensis* and *C. engesseri* in its larger size (Fig. 3). *Cricetodon albanensis* differs from *C. meini* and *C. aureus* in lacking the ectomesolophid and having double metalophulid on the lower molars, in having the M1 with weak or absent lingual anteroloph and mesoloph, with more developed anterior ectoloph and forward paracone spur and in the presence of a vestigial lingual posteroloph. It differs from *C. orientalis* in having shorter backward paracone spur and weaker (even absent) mesolophs on the upper molars, in having the lingual anteroloph less developed, a protostyle and a vestigial lingual posteroloph on the M1, in having the M2 more elongated, in lacking the posteroloph on the M3, and in having the m1 with a well-developed labial anterolophid and without a metaconid ridge. *Cricetodon albanensis* differs from *C. soriae* in having the M1 with a weak or absent lingual anteroloph, more developed anterior ectoloph and backward paracone spur, with a protostyle and a vestigial lingual posteroloph, the M2 more elongated than in *C. soriae*, no mesoloph on the M3 and in having the labial anterolophid on the m1. *Cricetodon albanensis* differs from *C. jotae* in the presence of a protostyle on the M1, in showing no mesoloph on the M3, and in lacking a ridge on the metaconid and having the labial anterolophid well developed on the m1. *Cricetodon albanensis* is distinct from *C. sansaniensis* in having the anterior ectoloph and backward paracone spur better developed and in the presence of a protostyle on the M1, in having the M2 more elongated than *C. sansaniensis*, and in the absence of a mesoloph on the M3. *Cricetodon albanensis* is distinct from *C. bolliegeri* in having a weak or absent lingual anteroloph, in lacking the enterostyle on the M1, in having a shorter backward paracone spur on the M2 and M3, and in the absence of an ectostylid and ectomesolophid on the m1. *Cricetodon albanensis* differs from *C. jumaensis* in having a weak or absent lingual anteroloph on the M1, a weaker backward paracone spur on the M2 and M3, in lacking the

mesoloph and the posteroloph on the M3, in having a well-developed labial anterolophid, and lacking the entomesolophid on the m1. It differs from *C. nievei* and *C. engesseri* in having weak or absent lingual anteroloph on the M1, in the presence of a protostyle on the M1, in having the M2 more elongated and the backward paracone spur and the mesoloph shorter.

Description of the material housed in the Naturkunde Museum of Berlin

M1: The M1 of *Cricetodon albanensis* show a shallow and narrow groove between the two sub-equal lobes of the anterocone. The labial anterocone bears an anterior ectoloph (remains of the labial anteroloph). The lingual anterocone connects to the protocone by the anterolophule. The lingual spur of the anterolophule is either present (e.g., MB. Ma. 27835-1, MB. Ma. 27831-3, Fig.1D) or absent (MB. Ma. 27835-2, Fig.1A). These teeth have low cingula surrounding the labial valleys. The protosinus is partially closed by a protostyle. The anterior ectoloph is short, high as the anterocone and does not reach the anterior wall of the paracone. The forward paracone spur is absent. The protolophule is anterolabially directed. The backward paracone spur is short but distinct and the posterior ectoloph is absent. The mesoloph is very short or indistinct (as in MB. Ma.27849-2 and MB. Ma. 27849-4, Figs 1I, K). The sinus is nearly transverse and partially closed by a ridge originating from the hypocone. The labial posteroloph is very short and disappears with wear. The lingual one is indistinct in all but one specimen (MB.Ma.27835-3, Fig. 1C), in which it is very short. These teeth have four roots.

M2: In occlusal view, the outline of these teeth is sub-rectangular, longer than wide, with the posterior part somewhat narrower than the anterior one. They have quite developed lingual anteroloph and a narrow but distinct protosinus in the anterior margin. The anterosinus is usually open due to the absence of anterior ectoloph. The forward paracone spur is short but distinct in all specimens. The posterior ectoloph is absent. A true mesoloph is indistinct and

merely a slight inflation at the beginning of the anterior arm of the hypocone is observed. The protolophule is slightly anterolabially oblique. The anteriorly directed sinus is partially or completely closed by a ridge originating from the hypocone. The labial posteroloph is very short and disappears with wear. The lingual posteroloph is usually indistinct, except for a few specimens (e.g. MB. Ma. 27835-1, MB. Ma. 27831-5, Figs 1B and P). These teeth have four roots.

M3: The outline of these teeth in occlusal view is rounded, longer than wide, with its posterior part much narrower than the anterior one. The labial anteroloph is long and the lingual one absent. Both the anterior ectoloph and the forward paracone spur are lacking. The backward paracone spur is short and the posterior ectoloph is absent, so the mesosinus remains open. The protolophule is slightly anterolabially directed. These teeth lack the posteroloph, but a small posterosinus is observed. The sinus is nearly transverse. These teeth have three roots. The M3 of *C. albanensis* are not very reduced, as shown by the low value of the ratio mean LM1/mean LM3 (Tab. 3).

m1: The occlusal outline of these teeth is sub-rectangular, longer than wide, with the anterior part somewhat rounded and narrower than the posterior one. The lingual anterolophid is absent, whereas the labial one is well developed, but does not reach the anterior side of the protoconid. All specimens show a double metalophulid. The metalophulid I is directed anterolabially and it connects the metaconid with the anteroconid. The metalophulid II is usually incomplete and does not reach the posterior side of the metaconid except for specimen MB. Ma. 27829-2 (Fig. 2D). None of the specimens show a mesolophid. The sinusid is directed anterolingually. There is a small and semi-circular sinusid on the posterior wall of the hypoconid. The posterolophid does not reach the posterior side of the entoconid. These teeth are two-rooted.

m2: These teeth are rectangular in shape, although they are anteriorly and posteriorly rounded. They show a strong labial anterolophid that reaches the anterolabial side of the protoconid. The metalophulid and the hypolophulid are anterolabially directed. A low ridge closes the mesosinusid. As for the m1, all the specimens show a double metalophulid with the metalophulid II more developed than in the m1 but still short. The mesolophid is absent. The posterolophid is long, but does not reach the posterior side of the entoconid. They are two or three rooted.

m3: The occlusal outline of these teeth is trapezoidal, longer than wide, with the posterior part rounded and narrower than the anterior one. The labial anterolophid is well developed and connected to the anterior wall of the protoconid, closing the protosinusid. All the specimens show a double metalophulid with the metalophulid II longer than in the m1 and the m2. The mesolophid is absent. A low ridge usually closes the nearly transverse sinusid. The posterolophid is short and the labial sinusid, situated on the posterior wall of the hypoconid, is very weak or lacking. These teeth are two-rooted.

Discussion

Cricetodon albanensis is one of the western European Middle Miocene species that are characterized by having brachyodont cheek teeth with short or absent ectolophs. This species together with *C. meini*, *C. aureus*, *C. jotae*, *C. sansaniensis*, *C. soriae*, *C. bolligeri*, *C. jumaensis*, and *C. engesseri*, was included by Prieto et al. (2010) inside a single group, which they called "group 5". The topology of the tree obtained via the tip-dating Bayesian analysis that includes most of the species of *Cricetodon* (López-Antoñanzas and Peláez-Campomanes, 2021) shows a clade that comprises all the above-mentioned species of *Cricetodon* and two additional ones: *Cricetodon nievei* and *Cricetodon orientalis*. These two species should be added in "group 5" (*sensu* Prieto et al., 2010). However, preliminary results of a larger

phylogenetic analysis (López-Antoñanzas et al. in prep.) provide evidence that *C. meini* and *C. aureus* should be excluded from this group as they may in fact belong to a more basal clade, which includes a set of plesiomorphic species of *Cricetodon* from China.

The sample of *Cricetodon albanensis* (Rodentia, Cricetodontinae) from La Grive-Saint Alban housed in the Museum für Naturkunde in Berlin (Germany) shows a low degree of morphological variability in this taxon, a characteristic common in Upper Aragonian populations of *Cricetodon*. *Cricetodon albanensis* shows some progressive characters when compared with the remaining Miocene congeneric species, such as a more pronounced anterior ectoloph and backward paracone spur on the upper molars and the presence of a strong anterior metalophulid and the absence of mesolophids on the lower molars (Figs 1 and 2). However, this taxon also retains primitive characters, such as the presence of a posterior (though incomplete) metalophulid on the lower molars, the existence of a protostyle and a lingual spur of the anteroloph on the first upper molar, the loss of mesolophs, and the presence of labial cingula surrounding the valleys on the upper molars (Figs 1 and 2).

The results of the phylogenetic analyses carried out by López-Antoñanzas and Peláez-Campomanes (2021) provide evidence that the clade to which *C. albanensis* belongs originated in the Early Miocene of Turkey. This clade includes most of the western Middle Miocene species of *Cricetodon* and it has an independent origin from the more derived European cricetodontines (*Hispanomys* and *Ruscinomys*).

Cricetodon albanensis has been considered to originate from *C. sansaniensis* (Mein and Freudenthal 1971b), which is in agreement with the results obtained by López-Antoñanzas and Peláez-Campomanes (2021). However, some differences are obvious between the morphology of the cheek teeth of *C. albanensis* with *C. sansaniensis*. The first one concerns the absence of a well-developed mesoloph in the upper molars of *C. albanensis*. Whereas this

structure is usually indistinct in *C. albanensis*, it is well-developed in *C. sansaniensis*. This is particularly remarkable in the case of the M3. The second difference regards the degree of development and position of the metalophulids. Whereas *C. albanensis* shows a double metalophulid on the m1, with the anterior one complete and stronger than the posterior (which is incomplete), *C. sansaniensis* has a strong posterior metalophulid (when it is double the posterior metalophulid is stronger than the anterior one). It is interesting that the presence of a dominant anterior metalophulid on the m1 is a trait that has been acquired independently in different lineages through time. According to the topology of the tree of López-Antoñanzas and Peláez-Campomanes (2021), inside the clade to which *C. albanensis* belongs ("group 5"), this trait would have appeared three times homoplastically at approximately 14 Ma: in (*C. engesseri+C. nievei*), (*C. bolligeri+C. jumaensis*) and in *C. albanensis*. Taking into account that circa 13.8 Ma an event of cooling has been evidenced (Miller et al. 2020), the so-called Mi3 event, it is plausible that the presence of a strong anterior metalophulid on the m1 could be related to a change in dietary habits toward food that includes more abrasive and fibrous plants. Moreover, according to López-Antoñanzas and Peláez-Campomanes (2021), the evolutionary radiation of another European clade of independent origin such as *Hispanomys* took place during the Mi3 event. Not only have these cricetodontines acquired the trait of having a strong anterior metalophulid but they also have reduced the length of the third molars and developed complete backward paracone spurs. These characters may have improved their diet specialization and made them more successful in those increasingly open environments compared to the Middle Miocene cricetodontines, which were driven to extinction.

It is uneasy to elucidate what *Cricetodon albanensis* gave rise to. Mein and Freudenthal (1971b) already rejected the idea that *Hispanomys* evolved from *Cricetodon albanensis* due to the lack of mesolophids on the lower molars (a derived character), which are present in

early species of *Hispanomys*. This hypothesis is reinforced by the results of López-Antoñanzas and Peláez-Campomanes (2021), according to which *Cricetodon albanensis* would be a dead-end offshoot inside the Cricetodontinae.

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Taxon	Locality	Institution	Temporal range	References
Cricetodon aureus	**Vieux Collonges** (France)	UL, MHNL, NBC	15.2-14	Mein & Freudenthal, 1971a
Cricetodon meini	**Vieux Collonges** (France)	UL, MHNL, NBC	15.2-14	Mein & Freudenthal, 1971a
Cricetodon orientalis	**Tieersihabahe** (China)	IVPP	15-13.4	Bi, 2005
Cricetodon soriae	**Somosaguas**, Las Planas 4A y 4B, Las Umbrias 11, 16, 19, 20 (Spain)	UCM, MNCN	14.3-13.9	López Guerrero el al, 2013
Cricetodon jotae	**Manchones** (Spain)	NBC, UU	13.6-12.6	Mein & Freudenthal, 1971b; López Guerrero et al., 2014
Cricetodon sansaniensis	**Sansan** (France)	MNHN, NMB	14.2-13.6	Baudelot, 1972; Maridet & Sen, 2012
Cricetodon bolliegeri	**Petersbuch 10** (Germany)	BSPG, PIMUZ	13.9-13.8	Rummel, 1995
Cricetodon albanensis	**La Grive-St. Alban M** (France)	MB, UL, NBC	13-11.1	Mein & Freudenthal, 1971b
Cricetodon jumaensis	**Petersbuch 18,** Schmidrüti (Germany)	SMF	13.9-13.8	Rummel, 2001
Cricetodon engesseri	**Chäzerentobel 505m** Schauenberg-Langriet 690m (Switzerland)	NMB	14-13.9	Rummel & Kälin, 2003
Cricetodon nievei	**Toril 3A** Las Planas 5H, Toril 2 y 3B (Spain)	MNCN	12.6-12.4	López Guerrero et al., 2014

Abbreviations

BSPG- Bayerische Staatssammlung für Paläontologie und Geologie
IVPP- Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences in Beijing
MB-Naturkunde Museum of Berlin
MHNL- Natural History Museum of Lyon
MNCN- National Museum of Natural Sciences (CSIC)
NBC- Naturalis Biodiversity Center
NMB- Naturhistorisches Museum Basel
PIMUZ- Paläontologisches Institut und Museum - Universität Zürich
SMF- Forschungsinstitut Senckenberg Frankfurt am Main
UCM- Department of Paleontology, Complutense University
UL- Faculty of Sciences, Lyon University
UU-Faculty of Earth Sciences, Utecht University

Table 1. Material used for comparisons in this study. In bold are highlighted the type localities.

	Length					Width				
	N	min.	mean	max.	s.d.	N	min.	mean	max.	s.d.
m1	8	2,60	2,86	2,99	0,136	8	1,73	1,81	1,97	0,090
m2	8	2,58	2,72	2,80	0,088	8	2,58	2,72	2,80	0,088
m3	8	2,55	2,66	2,95	0,130	8	1,83	1,97	2,12	0,102
M1	12	3,28	3,41	3,62	0,088	12	2,07	2,20	2,30	0,075
M2	8	2,49	2,64	2,83	0,130	9	1,95	2,09	2,20	0,093
M3	5	2,04	2,10	2,17	0,054	5	1,86	1,94	2,01	0,054

Table 2. Descriptive statistics of Length and Width for different dental elements of *Cricetodon albanensis* material from La Grive Saint Alban deposited in the Naturkunde Museum of Berlin. N= number of specimens; min.= minimum; max.=maximum; s.d.= standard deviation.

Taxa	Locality	Age	Lm1/Lm3	LM1/LM3	reference
C. aureus	Vieux-Collonges	MN4/5	1.10	1.59	López Guerrero et al., 2013
C. meini	Vieux-Collonges	MN4/5	1.06	1.60	Freudenthal & Martín Suarez, 2015
C. meini	Mühlbach	MN5	1.07	1.41	Daxner-Höck, 2003
C. soriae	Las Umbrias 11	MN5	0.99	1.47	López Guerrero et al., 2013
C. soriae	Las Umbrias 19	MN5		1.56	López Guerrero et al., 2013
C. soriae	Las Umbrias 20	MN5	0.99		López Guerrero et al., 2013
C. soriae	Somosaguas	MN5	1.02		Hernández Fernández et al., 2006
C. jumaensis	Petersbuch 18	MN5	1.03	1.52	Rummel, 2001
C. jumaensis	Petersbuch 35	MN6	1.11	1.63	Rummel, 2001
C. sansaniensis	Sansan	MN6	1.08	1.62	Maridet & Sen, 2012
C. jotae	Manchones	MN6	1.12	1.69	Freudenthal & Martín Suarez, 2015
C. bolligeri	Petersbuch 10	MN6	1.10	1.63	Rummel, 1995
C. engesseri	Chräzerentobel 505m	MN6	1.34	1.33	Rummel & Kälin, 2003
C. engesseri	Schauenberg-Langriet 690m	MN6	1.16	1.79	Rummel & Kälin, 2003
C. orientalis	Tieersihabahe Loc. 9018	MN6	1.08	1.59	Bi, 2005
C. nievei	Toril 3A	MN7/8	1.13	1.70	López Guerrero et al., 2014
C. albanensis	La Grive M	MN7/8	1.13	1.75	Rummel, 2001
C. albanensis	La Grive (MB collection)	MN7/8	1.08	1.62	This study

Table 3.- First/third molar length ratio for species of *Cricetodon* from various localities used for morphological comparison. MN chronology according to Van der Meulen et al., 2011.

Figure captions

Fig. 1. Upper molars of *Cricetodon albanensis*. **A.** Left maxilla with M1-M3 (MB. Ma. 27835-2). **B.** Right maxilla with M1-M2 (MB. Ma. 27831-1). **C.** Left maxilla with M1-M3 (MB. Ma. 27835-1). **D.** Right M1 (MB. Ma. 27831-3). **E.** Right M1 (MB. Ma. 27831-6). **F.** Left maxilla with M1-M3 (MB. Ma. 27835-3). **G.** Right maxilla with M1-M2 (MB. Ma. 27829-3). **H.** Right M2 (MB. Ma. 27831-4). **I.** Left M1 (MB. Ma. 27849-2). **J.** Left M1 (MB. Ma. 27849-5). **K.** Left M1 (MB. Ma. 27849-4). **L.** Left M1 (MB. Ma. 27849-3). **M.** Right M1 (MB. Ma. 27849-6). **N.** Right M1 (MB. Ma. 27849-1). **O.** Left M1 (MB. Ma. 27850-8). **P.** Right M2 (MB. Ma. 27831-5). **Q.** Right M2 (MB. Ma. 27831-7). **R.** Right M2 (MB. Ma. 27831-2). **S.** Right M3 (MB. Ma. 27850-4). Scale bar represents 2mm.

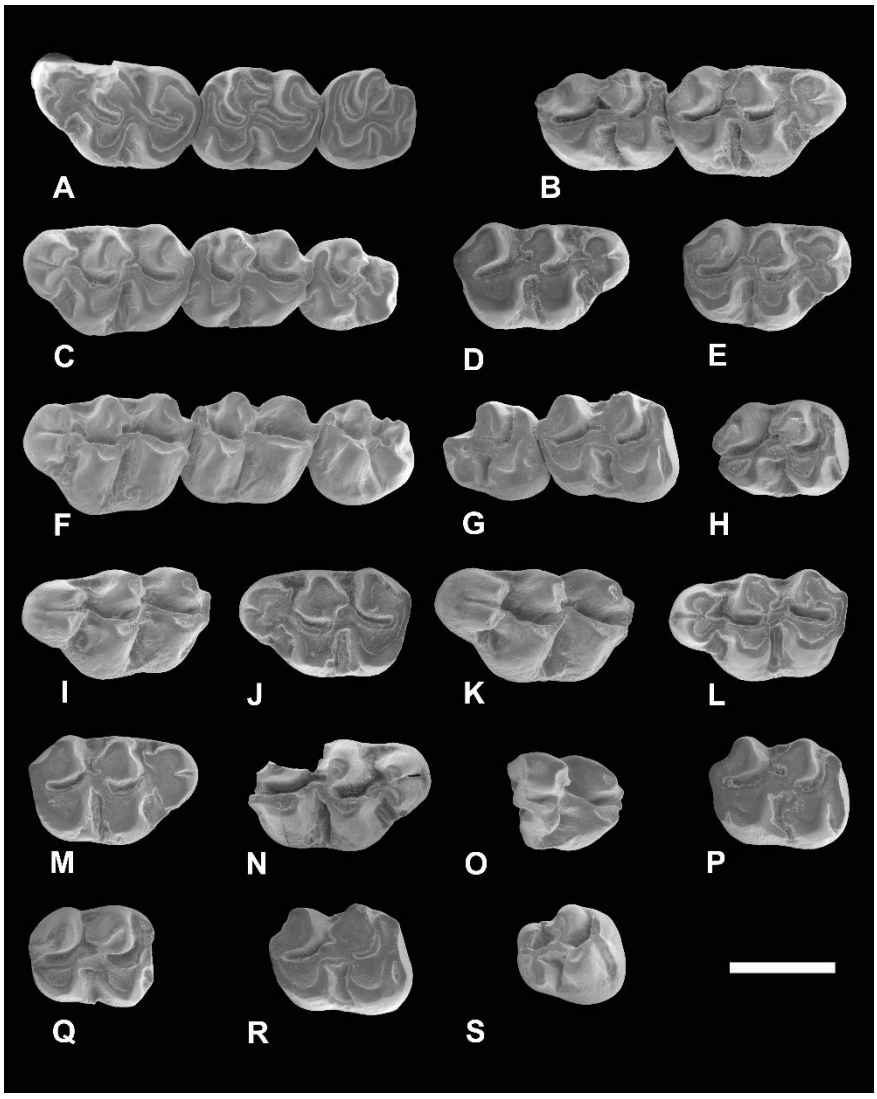

Fig. 2. Lower molars of *Cricetodon albanensis*. **A.** Left mandible with m1-m3 (MB. Ma. 27827). **B.** Right mandible with m1-m3 (MB. Ma. 27828-2). **C.** Left mandible with m1-m3 (MB. Ma. 27829-1). **D.** Right mandible with m1-m3 (MB. Ma. 27829-2). **E.** Left mandibular fragment with m1-m2 (MB. Ma. 27828-1). **F.** Left mandible with m2-m3 (MB. Ma. 27829-4). **G.** Right m1 (MB. Ma. 27848-2). **H.** Right m1 (MB. Ma. 27848-1). **I.** Right m1 (MB. Ma. 27850-1). **J.** Right m2 (MB. Ma. 27850-5). **K.** Right m2 (MB. Ma. 27850-3). **L.** Right m3 (MB. Ma. 27850-7) **M.** Right m3 (MB. Ma. 27850-6). **N.** Left m3 (MB. Ma. 27850-2). Scale bar represents 2mm.

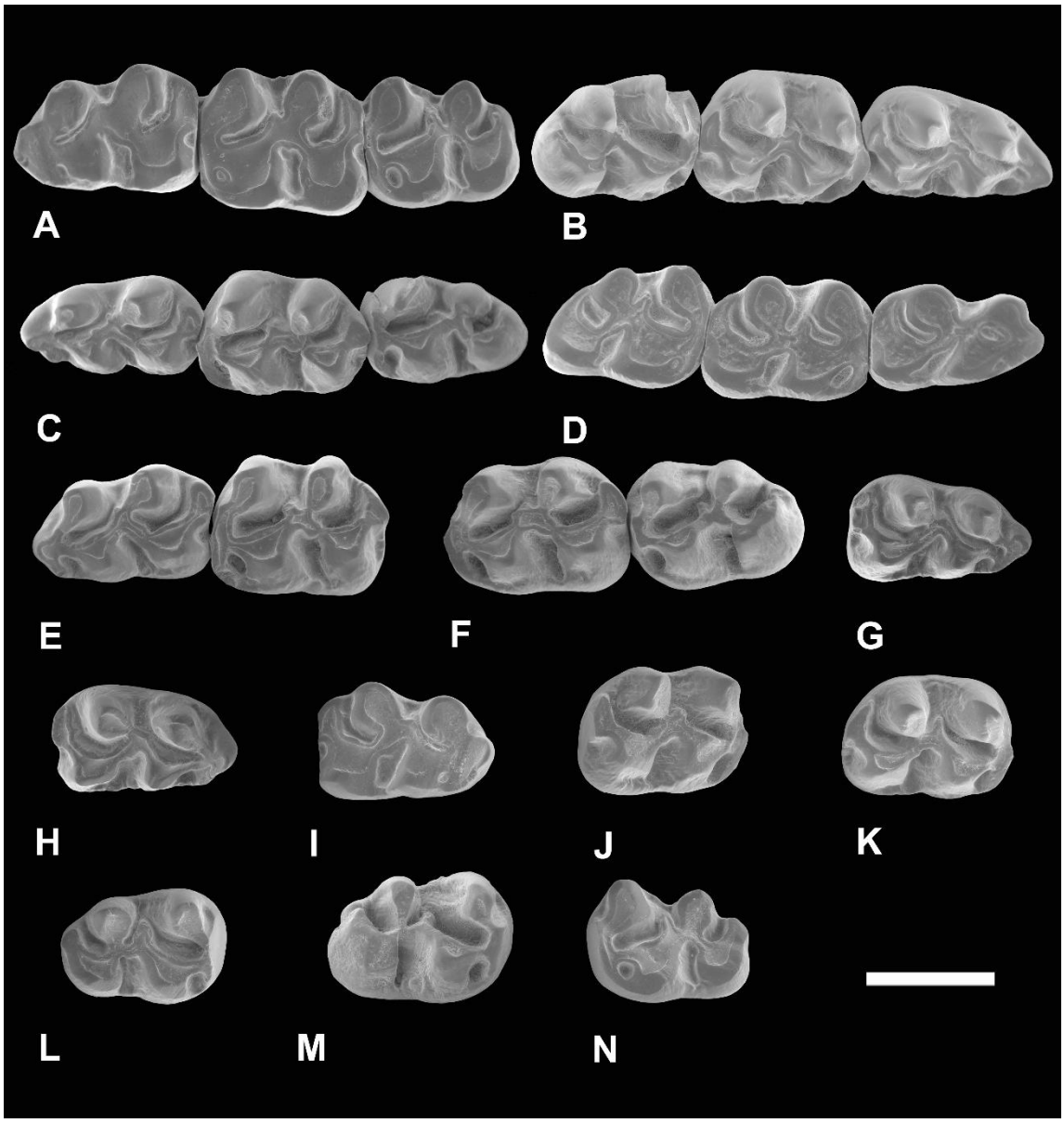

Fig. 3. Length/width scatter diagrams of the upper and lower molars of *Cricetodon albanensis* from La Grive-Saint Alban (France) housed in the Naturkunde Museum of Berlin.