

Supplementary information for a paper entitled:

Revising the species “*Mustela*” *ardea* Gervais, 1848-1852 (Mammalia, Mustelidae): *Martellictis* gen. nov. and the systematics of the fossil “Galictinae” of Eurasia..

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Appendix A. Characters description

1. Cranial height, in lateral view: not flattened (0), consistently flattened (1).
2. Dorsal profile of the cranium, in lateral view: strongly arched (0), modestly arched (1), straight (2).
3. Cranium rostrocaudal length: long (0), short (1).
4. Temporal region and the development of zygomatic arches: developed and long zygomatic arches (0), shortened and short zygomatic arches (1).
5. Postorbital constriction: slightly marked (0), marked (1), consistently marked (2).
6. Frontals development posterior to the postorbital processes: very short (0), short (1), long (2).
7. Infraorbital foramen: small (0), large (1).
8. Orbital fossa: shallow (0), deep (1).
9. Anterior margin of the orbit: not marked (0), crest-like and marked (1); very sharp and prominent margin (2)
10. Braincase morphology, in dorsal view: elongated (0), globular (1).
11. Tympanic bullae, general shape: markedly inflated and protruding in lateral view (0), inflation limited to medial portion (1), flattened (2).
12. Tympanic bullae mesial embayment: strong (0), weak (1), absent (2).
13. P4 hypocone: absent (0), reduced to cuspid-like cingulum (1), present (2).
14. Distal extension P4 protocone: absent (cuspid-like protocone) (0), short (reaches a third of the P4) (1), long (reaches half of the P4) (2)
15. P3 and p4 shape: oval (0), rounded (1).
16. Robustness of mandible: gracile (0), robust (1); very robust (2).
17. Masseteric fossa: shallow (0), deep (1), very deep (2).
18. Ascending ramus: slender (0), robust (1).
19. Mesial margin of the P4: embayed (0), continuous cingulum-like (1).
20. M1 constriction: present (0), missing (1).
21. P1: present (0), absent (1).
22. m1 metaconid: present (0), absent (1).
23. P4 protocone: conical cusp (0), shelf only (1).
24. p4 distal accessory cuspid: absent (0), present (1).
25. M1 metacone: reduced compared to paracone (0), equal in size to the paracone (1), lost (2).
26. Diastemata between lower premolars: absent (0), present (1).
27. m1 trigonid length: longer or equal to talonid (0), shorter (1).
28. M1 metaconule: absent (0), present (1).
29. Sagittal crest: end at the occipital (0), hangs over the occipitals (1).
30. Reduction of upper premolars: no reduction (presence of P2) (0), reduction (no P2) (1).

Appendix B. Data matrix

Mustela 000002000002000000001100000000
Pannonictis 000000000000020121000011010100
Eirictis 00?0010000??2202211000000100?0
Martellictis 011111101111120000000010010010
Enhydriictis 120022112022111111111010010100
Galictis 100000000010020000001110201000
Trigonictis ????????????12111101?0000100?0
Lyncodon 000000?00002220110011?01?00011
Oriensictis ????????????02011?01100?0?01?0

Appendix C. Additional tree obtained from the analysis

Six equally parsimonious trees that produced the 50% major cut-off tree in Fig. 3.

