

Craniodental materials of long-snouted dolphins (Cetacea, Odontoceti, Eurhinodelphinidae) from the early Miocene of Rosignano Monferrato, Piedmont (NW Italy): Anatomy, paleoneurology, phylogenetic relationships and paleobiogeography

Vera Tosetto¹, Piero Damarco², Riccardo Daniello², Marco Pavia¹, Giorgio Carnevale¹, Michelangelo Bisconti^{1,3,*}

¹Dipartimento di Scienze della Terra, Università degli Studi di Torino, via Valperga Caluso 35, 10125, Torino, Italy

²Ente di Gestione del Parco Paleontologico Astigiano, Museo Paleontologico Territoriale dell'Astigiano, Corso Vittorio Alfieri 381, 14100, Asti, Italy

³San Diego Natural History Museum, 1788 El Prado, San Diego, CA, 92101, United States of America

*Corresponding author: michelangelo.bisconti@unito.it

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Figure S1

The partial skull MGPT-PU 13881/1 before preparation. A, photographic representation of the skull in dorsal view. B, anatomical interpretation of the skull in dorsal view. C, photographic representation of the skull in ventral view. D, anatomical interpretation of the skull in ventral view. E, photographic representation of the skull in posterior view. F, anatomical interpretation of the skull in posterior view. Scale bars equals 5 cm.

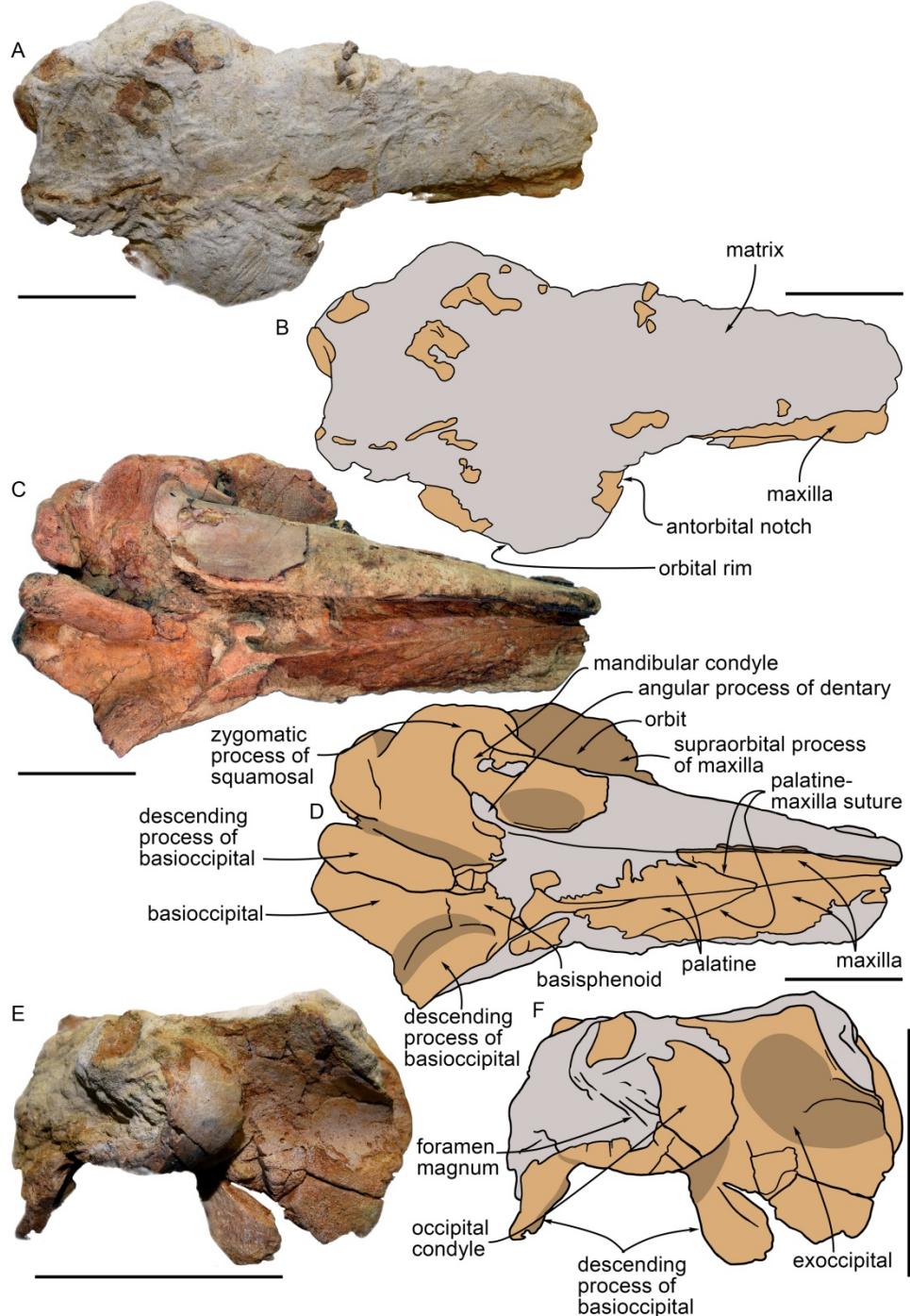


Figure S2

Position of the virtual endocast within the skull MGPT-PU 13881/1. A, dorsolateral view of the skull with solid bones. B, dorsolateral view of the skull with transparent bones. C, dorsal view. D, ventral view. E, anterior view. F, posterior view. Scale bar equals 5 cm. Dashed line in F indicates the estimated missing portion of the endocast (shape based on eurhinodelphinid endocasts of *Schizodelphis* and MGPT-PU 13873).

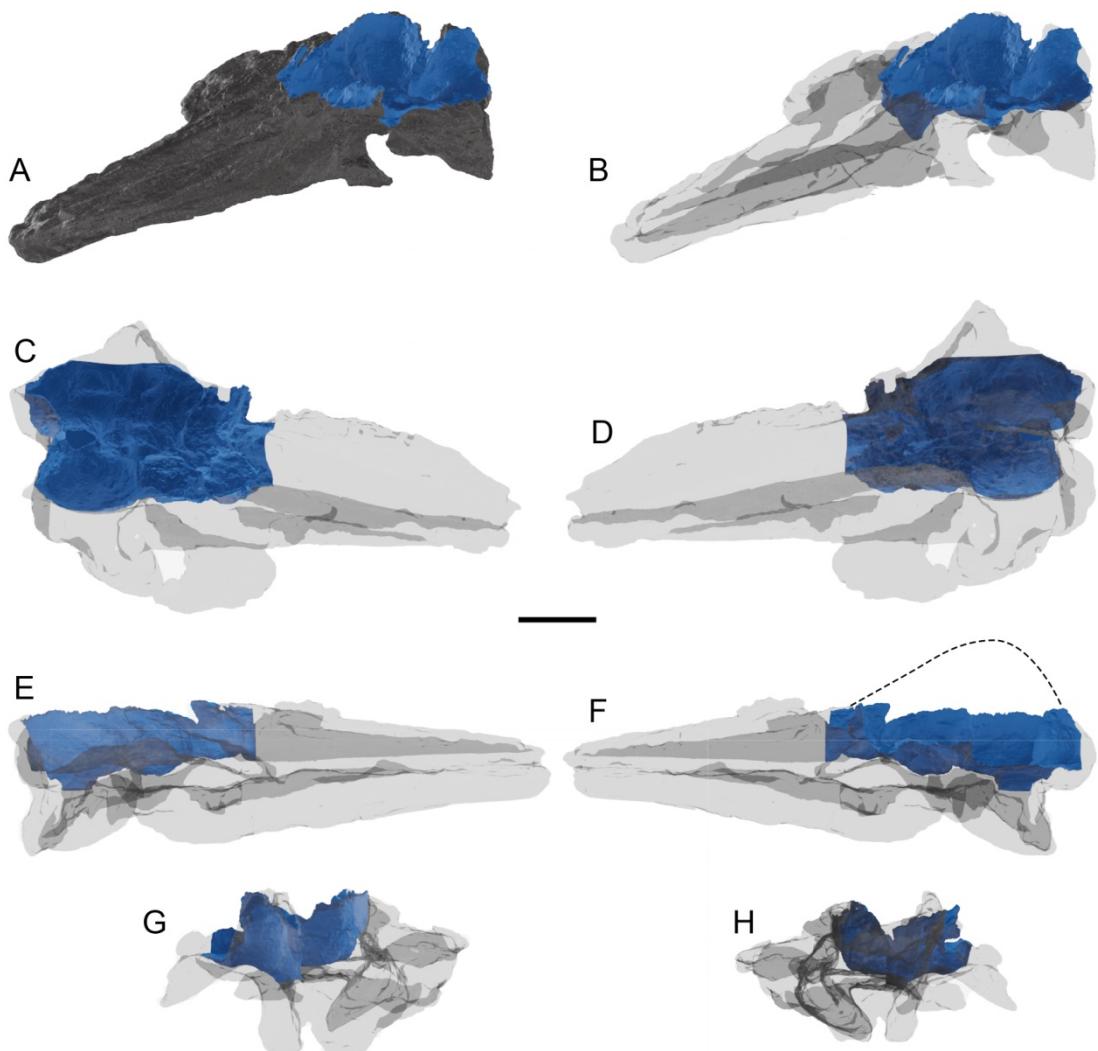


Figure S3

Strict consensus tree found by the present analysis with indication of the synapomorphy distributions (regular numbers referring to the characters described in Table A1) and the frequency of each clade in the 11 cladograms found by the implicit enumeration exact search (numbers in bold).

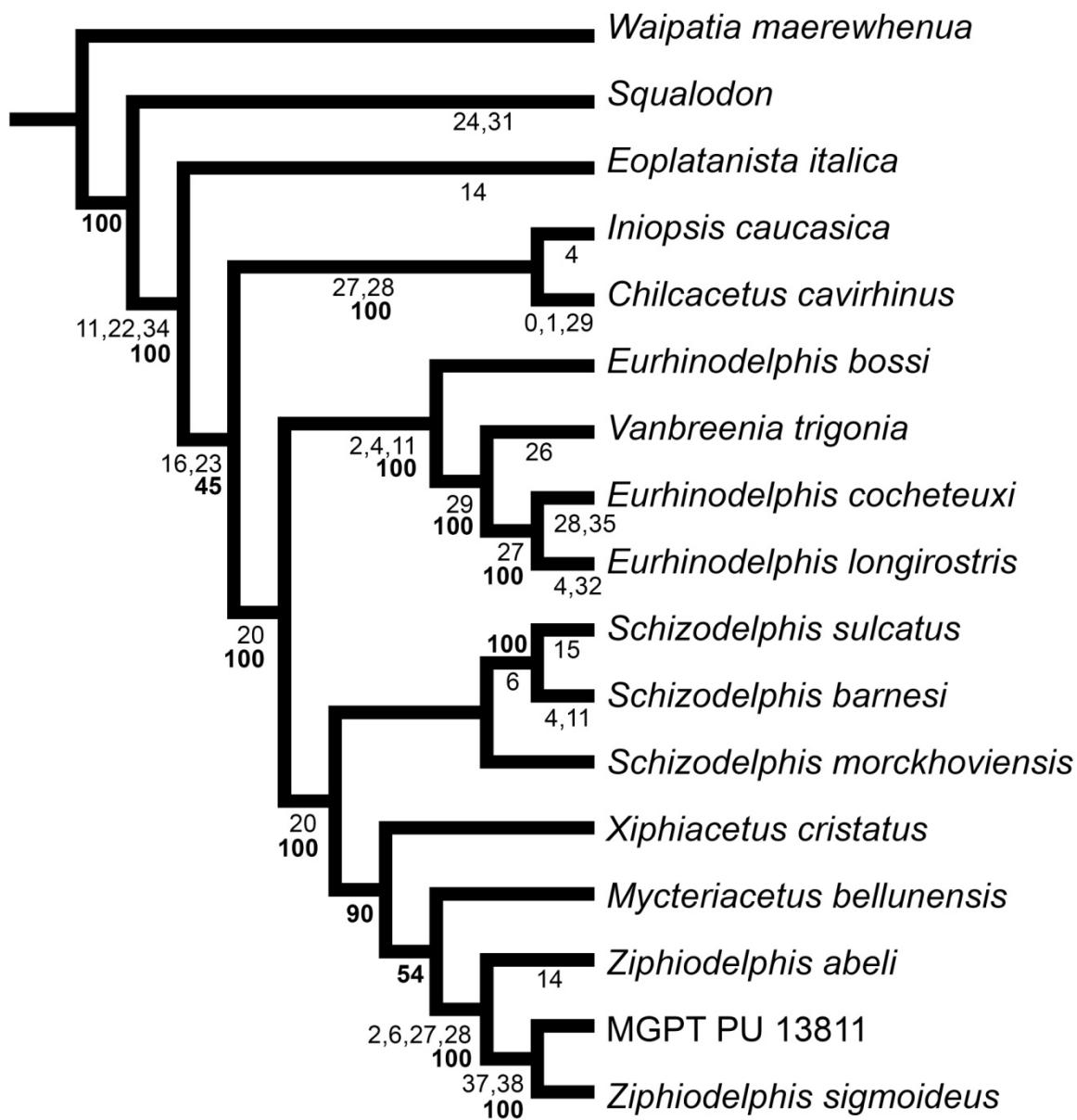


Table S1

Matrix used for phylogenetic analysis in Nexus format.

```
#NEXUS
BEGIN TAXA;
    TITLE Taxa;
    DIMENSIONS NTAX=17;
    TAXLABELS
Waipatia_maerewhenua      Squalodon      Eoplatanista_italica      Chilcacetus_cavirhinus
Schizodelphis_sulcatus     Schizodelphis_barnesi     Schizodelphis_merckhoviensis
Ziphodelphis_abeli
Ziphodelphis_sigmoides      MGPT_13881      Xiphiacetus_cristatus
Eurhinodelphis_longirostris   Eurhinodelphis_cocheteuxi   Eurhinodelphis_bossi
Mycteriacetus_bellunensis
Vanbreenia_trigonia Iniopsis_caucasica
;
BEGIN CHARACTERS;
    TITLE Character_Matrix;
    DIMENSIONS NCHAR=39;
    FORMAT DATATYPE = STANDARD RESPECTCASE MISSING = ? SYMBOLS = " 0 1";
    MATRIX
Waipatia_maerewhenua          003100000 0100001000 00000000000 00000000000
Squalodon                  0000000000 00000000000 0000010000 1010000000
Eoplatanista_italica          000000211 2010111000 0021010??? 0000?100??
Chilcacetus_cavirhinus        120201100 1011??000 0001000011 1000110100
Schizodelphis_sulcatus          010101111 2111111101 1101111100 1100110100
Schizodelphis_barnesi          010111111 2121100101 11011111?? ??????????
Schizodelphis_morckhoviensis      010001211 2011110101 1111101100 0011110200
Ziphodelphis_abeli              111001111 2021110111 1110101111 0000001200
Ziphodelphis_sigmoides          111001111 1021000111 1110??011 00100??211
MGPT_13881                  ???00???1 ???1???1?? ?110101011 ?010001?11
Xiphiacetus_cristatus          000011211 1101100112 1110111000 1111001200
Eurhinodelphis_longirostris      001201212 2000100110 0011100010 1111110200
Eurhinodelphis_cocheteuxi        001211212 2000100110 0011100011 1110111?00
Eurhinodelphis_bossi              001211212 2000100110 0011100001 00000??200
Mycteriacetus_bellunensis        110201211 21111001?? 0110??000 00100??100
Vanbreenia_trigonia              00?21???? ?????????? ???????100 1??????2??
Iniopsis_caucasica             00021111? 1??1????? ???????011 0?????????
```

;

end;