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A[illegible] 21, 2019

Phylogenomic Resolution of the Cetacean Tree of Life Using Target Sequence Capture

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Recei[illegible]ed 15 No[illegible]embe[illegible] 2018; [illegible]e[illegible]ned 2 Oc[illegible]obe[illegible] 2019; accep[illegible]ed 6 Oc[illegible]obe[illegible] 2019
A[illegible]ocia[illegible]e Edi[illegible]o[illegible]: He[illegible]nam L[illegible]pe[illegible]-Fe[illegible]n[illegible]nde[illegible]

Ab[illegible]ac[illegible]. [illegible] (37[illegible]) [illegible] (22[illegible]) [illegible] ~3200 [illegible] 68 [illegible] >38,000 [illegible] 11 [illegible] 6,527,596 [illegible] 89 [illegible] MCMCT[illegible] [illegible]

C[illegible] >50 M[illegible] (J[illegible] 2015; S[illegible] M[illegible] (G[illegible] O L[illegible] 2001). [illegible] M[illegible] C[illegible] T[illegible] 2017). M[illegible] (T[illegible] 2009). N[illegible] E[illegible] (56 34 M[illegible]) [illegible] (G[illegible] 2013; M[illegible] G[illegible] 2014; B[illegible] 2015). [illegible] (B[illegible] 2015; M[illegible] 2016). A[illegible]

A[illegible] (O[illegible]) [illegible] (M[illegible]) [illegible] (G[illegible] 2013). M[illegible] 89 [illegible] 75 [illegible] 14 [illegible]

T[illegible] (H[illegible] 2001; M[illegible] G[illegible] 2009; S[illegible] 2009; C[illegible] 2011; G[illegible] 2011; [illegible] 2011; H[illegible] 2012). F[illegible] D[illegible] (~37 [illegible]

(L . 1999; N . 2007; C . 2008; M G . 2009; M G 2011; A . 2012; P . 2013). P ~14 D); ~5 (. M G . 2009; S . 2009; S . 2010) ( ), (B . 1; K . 2009; M G . 2009; M G 2011; A . 2012; 2014; P . 2013).

A B (; 9) (; 22), (N 2005; S . 2005; N . 2007; D . 2008, 2014; D . 2008; M G . 2009; H . 2012). F (E) B B (N . 2005; S . 2005; D . 2008; M G . 2009; S . 2009; H . 2012; . 2018). I Z [, 2 *Me oplodon* ( ), (., D . 2008, 2014). T

(*Lipo e e illife* ; T . 2007) <30 (T . 2017).

T (G . 2013; . 2013; . 2013; F . 2015; K . 2015; T . 2015; C . 2016; . 2017; . 2018; . 2018). I (.,) (M . 2010; G . 2016). S

(M C . 2013; B . 2015; P . 2016; S . 2017). H (S . 2018).

T 3191 68 . B 18 (11 , 7) fi 100 77 12 . 6.5 38,167 3191 C . E D ( ). O D (*Delphin*) (*T iop*).

Materials and Methods

Sample De c ip ion, DNA E ac ion, and Lib a Con c ion

DNA 68 (77) (A T A1). T DNA (Q DN (Q UK L ., M UK). DNA A T S 2200, ~100 200 C ~200 S <100 . A DNA A 2100 B I NEBN U U II 8(2)41.9((S( )40.9(

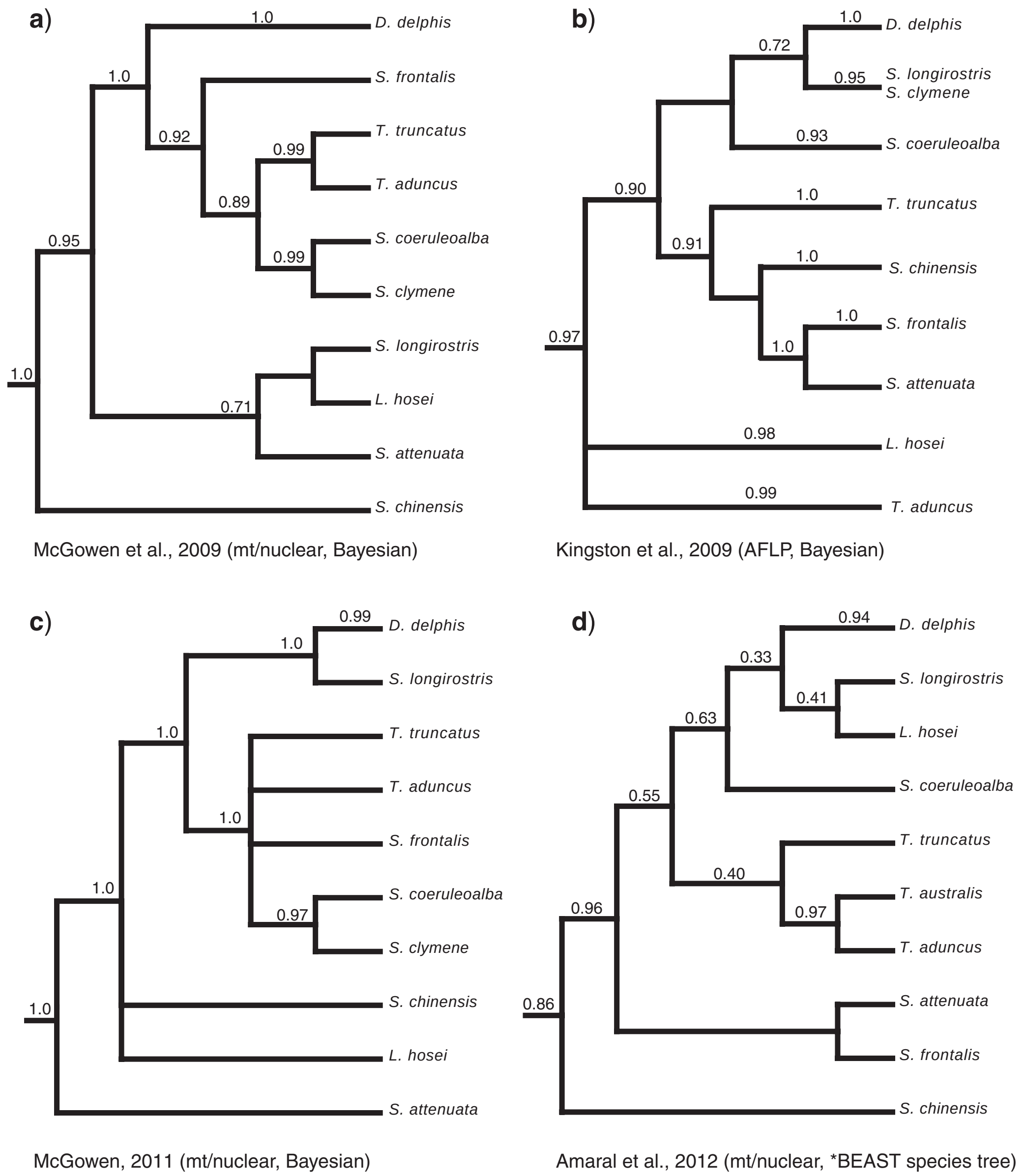


FIGURE 1. F ... D ... (... B ... PP. M ... (2009) ... OTU ...

P ... S 1; N E ... B ... I ... MA, USA) ... T ... B ... fi ... 6 12 ...

De ign of Bio in la ed RNA Bai

A ... 1:1 ... *T iop nca* ... T ... 1 (... *Homo apien* ... E ... 75. ... fi ... (GO) ...

... O ... GO ... O fi ... HGNC ... (CDS) ... , *T iop nca* (... T ... 1.4) ... *O cin o ca* (... O ... 1.1) NCBI G B (F ... 2015). T ... CDS ... *T iop* , *O cin* ... F ... CDS ... (*Lipo e e illife* , *Ph e e mac ocephal* , *Balaenop e a ac o o a a*; ... 2013; ... 2013; ... 2017). T ... 10,271 ... CDS ... 18,386,718 ...

B RNA (M) 100 M (A A MI, USA; A B) 10,271 CDS . B M Z (T. nca T 1.4) fi 4 (Me oplodon biden , Lagenodelphi ho ei, Cape ea ma gina a, S enella coe leoalba), (Choe op i libe ien i),

A fi 3256 DNA 77 68 (A T A1).

Ta ge Seq ence Cap e and Seq encing

T M B M 3.0, RNA ~20 24 C DNA S C1 (M O) . T DNA fi . E B L G C Q M , U L I N S 500 150 . A S R A (SRA) NCBI, B P PRJNA575269.

A embl of Read and Iden ifica ion of Con ig

F QC 0.11.5 (B B), T 0.36 (B . 2014). A S T S1 D ://. /10.5061/ 40 0 . T *de no o* T 2.2.0 (G . 2011). T , (; *E*- 10 −6; FASTA fi T *O. o ca* *T. nca* .

P S T S1 D . I FASTA fi CDS *Balaenop e a ac o o a a, B. ph al , Megap e a no aeangliae, Balaena m ice , Ph e e mac ocephal , Neophocaena phocaenoide , Lipo e e illife* (. 2013; . 2013; K . 2015; T . 2015; . 2017), *Bo a , O i a ie , Pan halop hodg onii, S c ofa, Vic gna paco , Camel bac ian , Eq caball* (L -T . 2011; B C . 2012; G . 2012; G . 2013; J . 2014). A (38,832) .

Alignmen

E 7 (K S 2013) 38,832 . T . T fi . A . I I *O. o ca* *T. nca* ; . I 65 (665) fi fi . F 3191 . NCBI G B *Pla ani a gange ica* (S A) *Balaenop e a om ai* (O), . T 72 *P. gange ica* (57,770) 67 *B. om ai* (57,686). S S T S2 D .

Ph logenomic Anal e

3191 (38,167) 6,527,596 : D A D B. D A *P. gange ica* *B. om ai*, D B . F ,

RA ML 8.2 (S 2014): (I) 3191 (II) 1573 (III) P H 2.1.1 (L . 2016). GTRCAT . E RA ML 1000 . T fi fi B D A E B GTR+G (A . 2014). T D A 1,000,000 500 . T 25% . R B 1.7 (R . 2018) . A RA ML E B CIPRES S G 3.3 (M . 2010). fi RA ML 8.2 3191 GTRCAT . D P. gange ica B. om ai, ASTRAL-III 5.6.1 (M 2015; . 2018). ML 3191 RA ML . I .

Di e gence Da ing Anal i

F . ( ), 3096. I ; *Delphin delphi* , *delphi* - *bai dii* - (108471). I >50% (I. ., *H pe oodon planif on* , *Phocoenoide dalli*, *Be a di a n ii*, *P. gange ica*, *B. om ai*). O (OTU) (RA ML E B), fi 85 .

D fi R (2012) . T PAML 4.9 (2007) 3096 HK 85 (H . 1985). P *O. o ca* ( ) *B. ac o o a a* ( ) , *B. ac o o a a* . U 3 10 1032 309 . T . - fi (1 /2 3 CP) 3- . I 6- 10- . D MCMCT 4.9 PAML (2007). MCMCT B (R 2011; R . 2012). M - (. 2011) 3 R (R . 2018). T (PP) (AR IR). T (R . 2018) . T -fi B : 1 20, 40, 85 ; 5 20 ; 20 20 40 . A R . (2018), 85 fl . N .

T

TABLE 1. B

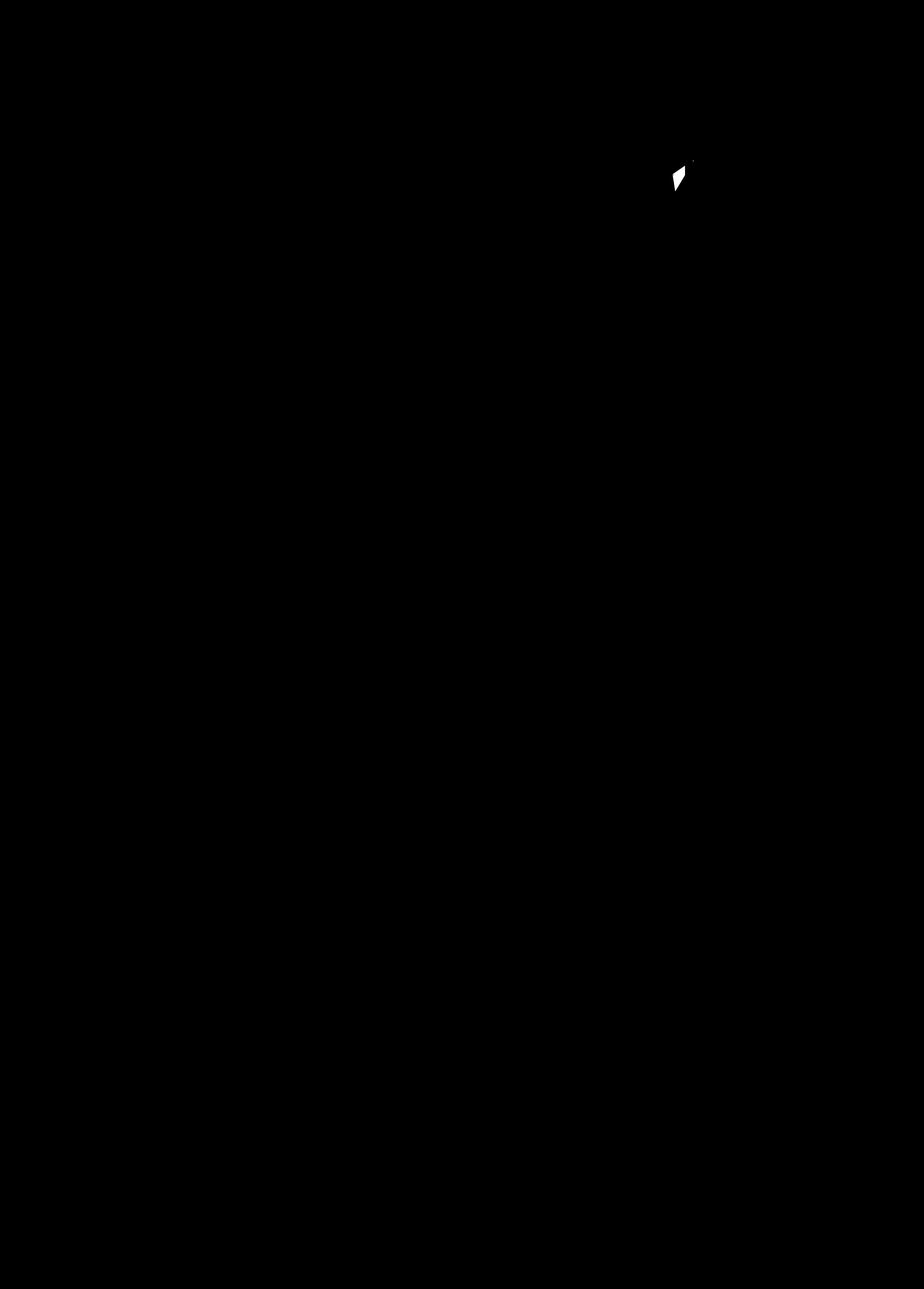
TABLE 2. ... MCMCT

N	M (M)	M	M (M)	M	C
P + C (R)	H 52.40	*Himala ace ba h en i* ( )	S 164.6	M L : *J amaia* ( )	B . (2015)
C C	H 52.40	*Himala ace ba h en i* ( )	S 66.00		B G (1998); O L U (1999); B . (2015)
C	H 52.40	*Himala ace ba h en i* ( )	S 66.00		B G (1998); O L U (1999); B . (2015)
	H 52.40	*Himala ace ba h en i* ( )	S 66.00		B G (1998); O L U (1999); B . (2015)
C B	H 16.00	*P e do ag eeg aben i* ( )	S 28.00		B (2013); B . (2015)
C C	H 36.40	*M acodon elenen i* ( )	S 52.40	*Himala ace ba h en i* ( )	L . (2017); B G (1998)
C M	H 25.20	*Ma ice pa ki* ( )	S 36.40	*M acodon elenen i* ( )	M F (2015); L . (2017)
C	H 13.20	*A chaeo iphi mic oglenoide* ( )	S 23.00	*No oce anbenedeni* ( )	M (1987); L L (2006); G . (2011)
P + M	H 7.50	*Sal miphocoena ock oni* (P + M)	S 19.50	*Ken iodon pe ni* ( )	K (1927); (1973); G . (2011);
D *L. albi o i*	H 8.5	*Eodelphin kaba en i* (O cin)	S 19.50	*Ken iodon pe ni* ( )	K (1927); M . (2014)
D *S. g ianen i*	H 3.98	*E idelphi gi lii* ( )	S 8.5	*Eodelphin kaba en i* (O cin)	B (2013); M . (2014)

B. om ai . T RA ML 3191 . 2. S RA ML ; . 2), 100% (BS) (. 2). O 90% BS, (. 2). B E B (ESS >224; S . S2 D) B PP 1.0. A 2+ (BS 100; PP 1.0). T ASTRAL (S . S3 D) D (. 1). I ≥0.99 (S . S3 D). T ASTRAL *Li odelphi Sagma ia oblic iden* + *Sa. ob c Cephalo h nch* + *Sagma ia a ali* 0.8, *T. nca* *T. ad nc* , *S enella a en a a* + *f on ali* (. 1 S . S3 D). T D (N 1 2; . 2) ASTRAL PP 0.42 0.89, (S . S3 D), . T ASTRAL fi 0.869, fi .

Divergence Dating

DISCUSSION



(Fig. 3; S T S3 ... D). H ... R . (2018), ... AR ... IR ... (Fig. 3). F ... D ... AR ... (M G . 2009; S . 2010; ... . 2011) ... (S . 2009); ...

T ... (R 2011) ... O ... MCMC ... B ... (T 1). O ... AR, ... N ... AR ... C ... fi ... (S . 2018). H R (2007) ... fi ... R (2007) ... T ... R (2007) I . (2010) ... fi ... B ... fi ... I ... fi ... F ... Z ... I . 2010[ ]). I ... fi ... H ... (R 2011), ...

... T , MCMC ... 100 ... 10^3, 10^6, 10^9 ... T ... G ... 10 S D (Fig. 5), ...

Rela ion hip among Majo Ce a iodac lan Lineage

... 100% ... fi ... C ... T (*Vic gna*, *Camel*) ... S (S), R (*Bo* , *T agelaph* , *Ga ella*, *O* , *O i* , *Pan halop*), A (*Hippopo am* , *Choe op i*), C . P ... ( ) ... 53.92 M (Fig. 3). T ... C C (C=36.72 M ; Fig. 3) ... (M G . 2009; S . 2009; S . 2010), ... (N . 2001; S . 2006; ... 2009; M . 2011; H . 2012; ... M F 2015). T ... *M. elenen i* ... C C (L . 2017), ... (36.4 M) ... 2 M ... *Llanoce den ic ena* (34.2 M), N [illegible] B [illegible] (B [illegible] M [illegible] 2006; B [illegible] 2007, 2014; S [illegible] 2007; C [illegible] . 2011; E A [illegible] . 2014). I [illegible] P [illegible] G 1994; R [illegible] . 2004; S [illegible] . 2005, 2006; A [illegible] M -C [illegible] 2008; D [illegible] . 2008; S [illegible] . 2009; M G [illegible] 2011; H [illegible] . 2012; F [illegible] M 2013; M [illegible] F [illegible] 2015). T N [illegible] N [illegible] (*E balaena japonica* [illegible] *E balaena glacialis* [illegible]) [illegible] (F [illegible]. 2), [illegible] DNA [illegible] DNA [illegible] *E. japonica* [illegible] *E balaena a [illegible] alis* [illegible] *E. glacialis* (R [illegible] . 2000; G [illegible] . 2005). *E balaena glacialis* [illegible] (*E. glacialis* [illegible] *E. japonica*) [illegible] *E. japonica* [illegible] *E. a [illegible] alis* (R [illegible] . 2000). T [illegible] *E balaena* [illegible] (~4.35 [illegible] ~2.62 M ; S [illegible] T S3 [illegible] D [illegible]) [illegible] *E. japonica* [illegible] *E. glacialis* [illegible].

O [illegible] (*E ch ich i ob* [illegible]; E [illegible]) [illegible] fi [illegible] B [illegible] G 1994; R [illegible] . 2004; S [illegible] . 2005, 2006; N [illegible] . 2007; D [illegible] . 2008; A [illegible] M -C [illegible] 2008; S [illegible] . 2009; M G [illegible] 2011; H [illegible] . 2012). I [illegible] fi [illegible] *Balaenop e a* [illegible] *E ch ich i* [illegible] *Megap e a* [illegible] (*B. ac o o a a* + *Balaenop e a bonae en i*) [illegible] *E. ob* [illegible] BS B [illegible] ML [illegible] 64 78). A [illegible] B [illegible] ~15.74 M [illegible] (M G [illegible] . 2009; [illegible] . 2018). I [illegible] B [illegible] AR [illegible] IR [illegible] (F [illegible]. 3), [illegible] IR [illegible] 4.75 M . [illegible] (2018) [illegible] >30,000 20- [illegible] *M. no aeangliae* + *B. ph al* . T [illegible] fl [illegible] *Balaenop e a m c l* [illegible] *M. no aeangliae* + *B. ph al* [illegible] *E. ob* [illegible] fi [illegible].

T [illegible] A [illegible] (L [illegible] . 2019). [illegible] . (2018) [illegible] B [illegible] *E. ob* [illegible] B [illegible] . C fl [illegible] N [illegible] 6 [illegible] 7 [illegible] *B. om ai*, [illegible] *B. m c l* + *Balaenop e a edeni* + *B. bo eali* [illegible] 100% BS [illegible] RA ML [illegible] D [illegible] B (S [illegible] F [illegible]. S1 [illegible] D [illegible]).

Ph logen and E ol ion of Odon oce i

[illegible] fi [illegible] O [illegible] (F [illegible]. 2), [illegible] (G [illegible] . 2014). S [illegible] (P [illegible] + K [illegible]) [illegible] L E (~34.13 M ; F [illegible]. 3); [illegible] E (M [illegible] . 2016). P [illegible] K [illegible] L O E M (~22.11 M ; 95% CI: 20.58 24.08; S [illegible] T S3 [illegible] D [illegible]). T [illegible] (M G [illegible] . 2009; S [illegible] . 2009; M [illegible] . 2011; H [illegible] . 2012). *Kogia* [illegible] *Ph e e* [illegible] (P [illegible]), [illegible] fi [illegible] S [illegible] D [illegible] T [illegible] E M (V [illegible] -J [illegible] . 2015).

Pla ani a gange ica [illegible] S [illegible] A (I [illegible], G [illegible] B [illegible]) [illegible] (G [illegible] . 2011; M [illegible] . 2016). A [illegible] *Pla ani a* [illegible] 72 [illegible] *P. gange ica* [illegible] (F [illegible]. 2), [illegible] (*Inia*, *Lipo e*, [illegible] *Pon opo ia*). S [illegible] *Pla ani a* [illegible] (C [illegible] . 2000; H [illegible] . 2012), [illegible] fi [illegible] (M G [illegible] . 2009; S [illegible] . 2009; C [illegible] . 2011; G [illegible] . 2011; M [illegible] . 2011; N [illegible] . 2001; [illegible] . 2011). P [illegible]

(Me oplodon ho a la, Me oplodon a e ii, Indopace pacific ; . 2). T

(A M -C 2008; D . 2008, 2014; M G . 2009; S . 2009). E M M (= 15.61 M ; 95% CI: 13.65 17.79; . 3), Be a di Ta mace , Ziphi , H pe oodon, Me oplodon (. 2). O Ta mace hephe di,

(E M 2017). fi : (Be a di , Ziphi , Ta mace) H (Indopace , H pe oodon, Me oplodon), H pe oodon + Me oplodon . Me oplodon (15) 13 L M 5 M (. 3). Me oplodon, fi : biden , gingkoden , e opae , mi ; la a dii, ca lh bb i, bo doini; hec o i, g a i, ejnege i, den i o i , pe ini, pe ian . A la a dii hec o i DNA, (D . 2002, 2007, 2008, 2014; M G . 2009; S . 2009); . T fi gingkoden + mi + e opae DNA, biden (. 2). T fi M. biden Me oplodon (D . 2008, 2014; M G . 2009; S . 2009).

P (Inia, Pon opo ia, Lipo e). I Lipo e D (D + I + P + (C . 2000; H . 2001) Inia + Pon opo ia (A M -C 2008; M G . 2009; S . 2009; G . 2011; H . 2012). I fi (. 2), L O (= 23.97 M ; 95% CI: 23.03 24.92). E Lipo e

Inia, (G . 2011).

D (M + P + D) M P (. 2000; C . 2000; A M -C 2008; M G . 2009; S . 2009; M G 2011; S . 2011; H . 2012). C E M (= 19.78 M ; 95% CI: 18.81 20.76). F K fi D D (M . 2014; P . 2018). B P C M L M (. 3). Neophocoena Phocoena. T Phocoena fi Phocoena phocoena P. dalli Phocoena; / (P . 2001; M G . 2009; S . 2009).

O D (. 2). T C D AR (= 12.72 M) 3 M IR (= 9.86 M), (M G . 2009; S . 2010; H . 2012). M L M /P (. 3). R D D fi (M G . 2009; S . 2009; M G 2011). fi D (Le cople ac , O. o ca, Lageno h nch albi o i ; . 2), fi O. o ca L. ac L. albi o i (M G 2011). N L. ac L. albi o i Lageno h nch , Sagma ia (en L . 1999; V . 2019; . 2). E fi : G amp , O caella, S eno), D So a So alia).

R ... (Li odelphi, Sagma ia, Cephalo h nch) ... (M G ... 2009; M G ... 2011). ... (Sagma ia c cige, Cephalo h nch e opia, C. hec o i); ... C. e opia ... C. hec o i ... Cephalo h nch comme oni, ... S. c cige ... S. a ali (P ... 2001; H ... -C ... 2006; H ... 2006; M -C ... A ... 2006; M G ... 2011; B ... -HJ ... 2014; V ... 2019). B ... Cephalo h nch ... Sagma ia ... Cephalo h nch hea i idii ... Cephalo h nch S. a ali ... (M -C ... A ... 2006; M G ... 2011), ... S. a ali (... S. c cige) ... Cephalo h nch ...

fi ... O caella, S eno, ... G amp ... G ... O caella ... S eno ... L M ... (Fig. 3). P ...

fi ... (Globicephala, Fe e a, P e do ca, Peponocephala; C ... 2008; M G ... 2008, 2009; S ... 2009; B ... -HJ ... 2014). I ... O caella ... fi ... O cin ... O cin ... (L ... 1999), ... DNA ... O cin ... O caella (L ... 1999; A ... M -C ... 2008). A ... S eno ... So alia ... D ... (C ... 2011; V ... 2011), ...

T ... fi ... ~14 ... D ... (T iop, S enella, So a, So alia, Lagenodelphi, ... Delphin), ... (Fig. 1; P ... 2013; B ... P ... 2018). I ... fi ... S enella, ... T iop, Delphin ... Lagenodelphi ... (Fig. 2), ... DNA, DNA, ... (Fig. 1; L ... 1999; C ... 2008; K ... 2009; M G ... 2009; S ... 2009; ... 2009; M G ... 2011; A ... 2012). H ... So alia ... So a ...

... O ... Delphin, Lagenodelphi, S. coe leoalba, S. longi o i, ... S enella cl mene. T ... (S. a en a a + S. f on ali) ... (T. nca ... T. ad nc), ... T ... A ... (2012) ... 13 ... DNA (Fig. 1), ... (Fig. 2), ... T ... (P ... 1981). P ... (1987) ...

... M ... Lagenodelphi, S enella, T iop, ... So a ... Delphin (L ... 1999; C ... 2008; M G ... 2009; M G ... 2011; P ... 2013); ... (L. ho ei, S. coe leoalba, S. cl mene, S. longi o i) Delphin ... S enella ... (S. a en a a) ... S enella (P ... 1987) ... T iop ...

R ... Delphin capen i, ... (N ... 2006; K ... 2009; C ... 2015; F ... -C ... 2017), ... S ... M M ... C ... T ... D. delphi ... (S ... M M C ... T ... 2017). T ... bai dii ... opicali, ... capen i, ... (H ... P ... 1994; J ... V ... 2002). I ... C ... (2015), ... fi ... D. capen i ... D. delphi, ... fi ... I ... O ... opicali ... D. capen i (J ... V ... 2002) ... D. delphi delphi ... UK ... C ... (D. delphi bai dii; 79929, 108471; Fig. 2).

O ... D ... *S enella cl mene.* H , *S. cl mene* ... *S. longi o i* ... (Fig. 2). *S enella cl mene* ... P ... (1981), ... *S. longi o i* ... *S. coe leoalba.* M ... *S. cl mene* ... *S. coe leoalba* ... (L ... 1999), ... DNA ... *S. cl mene* ... *S. coe leoalba* (L ... 1999, M -C ... A ... 2006; M G ... 2009). C ... DNA ... AFLP ... *S. cl mene* ... *S. longi o i* (K ... 2009; Fig. 1). A ... (2014) ... *S. cl mene* ... *S. coe eloalba,* ... *S. longi o i;* ... DNA ... fi ... O ... *S. cl mene,* ...

Conclusion

... 3191 ... 68 ... 18 ... (38,167 ... ; >6.5 ...) ... (77 ... 89). E ... D ...), ... O ... *S enella,* *Lagenodelphi , Delphin* ... T *iop .* F ... 12 ... (., *So alia fl ia ili , So a pl mbea, S. ah len i*), ... (*Me oplodon a e ii, M. ho a la*). C ...

Supplementar Material

D ... D ... D ... R ... : ... ://... /10.5061/... 40 0

Ackno ledgments

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APPENDI

TABLE A1. [illegible]

S [illegible]	C [illegible]	ID	L [illegible]	L [illegible]	I [illegible]	O [illegible] ID
C						
Balaenop e a bonae en i	A [illegible]	199219648	T [illegible], A [illegible]	AAD		
Balaenop e a bo eali	S [illegible]	S 2012/413	N [illegible], E [illegible]	IO		
Balaenop e a (edeni) edeni	B [illegible]	1380856971	T [illegible], A [illegible]	AAD		
Balaenop e a (edeni) edeni	B [illegible]	66737	O S [illegible], M [illegible]	S FSC		
Balaenop e a m c l	B [illegible]	49099	C [illegible], USA	S FSC		
Balaenop e a ph al	B [illegible]	S 1995-105	K , E [illegible]	IO		
Be a di a n ii	A [illegible]	9128	N [illegible]	S FSC	N C TA	BAR02
Be a di bai dii	B [illegible]	76728	C [illegible], USA	S FSC		
Cape ea ma gina a	P [illegible]	5990	N [illegible]	S FSC		
Cephalo h nch comme onii	C [illegible]	40	C [illegible]	S FSC		
Cephalo h nch hea i idii	H [illegible]	7320	[illegible], S [illegible] A [illegible]	S FSC	PBB	9622
Delphinap e le ca	B [illegible]	55860	A [illegible], USA	S FSC	ADFG	BB2006-44
Delphin delphi bai dii	N. P . [illegible]	79929	C [illegible], USA	S FSC		
Delphin delphi bai dii	N. P . [illegible]	108471	C [illegible], USA	S FSC		
Delphin delphi delphi	S [illegible]	S 1999-92	D [illegible] E [illegible]	IO		
Delphin delphi opicali	I [illegible] -P [illegible] fi	4525	I [illegible] O , O	S FSC		
E ch ich i ob	G [illegible]	133943	C [illegible], USA	S FSC		
E balaena a ali	S [illegible]	TAS1201	T [illegible], A [illegible]	AAD		
E balaena glaciali	N [illegible] A [illegible]	13086	M [illegible], USA	S FSC		
E balaena japonica	N [illegible] P [illegible] fi	43864	A [illegible], USA	S FSC		
Fe e a a en a a	P [illegible]	145402	E [illegible] N [illegible] P [illegible] fi	S FSC		
Globicephala mac o h nch	S [illegible] -fi [illegible]	39091	C [illegible], USA	S FSC		
Globicephala mela	L [illegible] -fi [illegible]	S 1997-162	N [illegible], E [illegible]	IO		
G amp g i e	R [illegible]	S 1992-213	D [illegible]	IO		
H pe oodon planif on	S [illegible]	9120	N [illegible]	S FSC	N C TA	HPL01
H pe oodon amp lla	N [illegible]	S 2006-40	L [illegible], E [illegible]	IO		
Inia geoff en i	A [illegible]	505	A [illegible], B [illegible]	S FSC	USNM	571366
Kogia ima	D [illegible]	12696	F [illegible], USA	S FSC		
Kogia b e icep	P [illegible]	S 1997-159	P [illegible]	IO		

TABLE A.1. C

S	C	ID	L	L	I	O ID
Lagenodelphi ho ei	F	452	N P fi	S FSC	USNM	500354
Lagenodelphi ho ei	F	30470	H , USA	S FSC		
Lageno h nch (Sagma ia) a ali	P	4926	C E S , C	S FSC		
Lageno h nch (Sagma ia) obliq iden	P fi	31902	C , USA	S FSC		
Lageno h nch (Sagma ia) ob c	D	2318	P	S FSC		
Lageno h nch (Le cople) ac	A	S 1998-90	N , E	IO		
Lageno h nch albi o i	-	S 1999-201A	H , E	IO		
Li odelphi bo eali	N	113034	C , USA	S FSC		
Li odelphi pe onii	S	LPER020904	T , A	AAD		
Me oplodon biden	S	S 1998-81	, E	IO		
Me oplodon bo doini	A	9109	N	S FSC	N C TA	CA01
Me oplodon ca lh bb i	H	1563	C , USA	S FSC		
Me oplodon den i o i	B	S 1993-78	D ,	IO		
Me oplodon e opae	G	7444	F , USA	S FSC		
Me oplodon ginkgoden	G -	M N 03	T , N	N C TA		
Me oplodon g a i	G	210210	T , A	AAD		
Me oplodon hec o i	H	9115	N	S FSC		
Me oplodon la a dii	S -	1763273011	T , A	AAD		
Me oplodon mi	T	4972	N , USA	S FSC	USNM	504612
Me oplodon pe ini	P	4976	C , USA	S FSC	USNM	504259
Me oplodon pe ian	P	23629	C , USA	S FSC		
Me oplodon ejnege i	S	107244	A , USA	S FSC		
Monodon monoce o	N	8293	U , G	S FSC	GINR	GF16213
Neophocaena phocaenoide	I -P fi fi	61334	H K	S FSC		
O caella b e i o i	I	7205	M R L	S FSC		
O caella hein ohnii	A fi	2907	Q , A	S FSC		
Peponocephala elec a	M -	41110	H , USA	S FSC		
Phocoena diop ica	S	981	E . L V , A	S FSC		
Phocoena phocoena	H	S 2000-104	C ,	IO		
Phocoena pinipinni	B	1092	P	S FSC		

TABLE A.1. C

S	C	ID	L	L	I	O ID
Phocoenoide dalli	D	4824	C , USA	S FSC		
Pon opo ia blain illei	F	7349	N , A	S FSC		
P e do ca c a iden	F	123188	M , H , USA	S FSC	K	K 2010019
So alia g ianen i	G	9837	N , B	S FSC		
So a chinen i	I -P fi	77289	H K	S FSC	TJ	HKB42
S enella a en a a	P	18473	T E P fi	S FSC		
S enella a en a a	P	38219	T E P fi	S FSC		
S enella cl mene	C	1724	G M	S FSC		
S enella cl mene	C	1726	G M	S FSC		
S enella coe leoalba	S	S 2000-22	D E	IO		
S enella f on ali	A	7782	N A	S FSC		
S enella f on ali	A	7784	N A	S FSC		
S enella longi o i	S	16012	T E P fi	S FSC		
S enella longi o i	S	24923	T E P fi	S FSC		
S eno b edanen i	R	18431	T E P fi	S FSC		
S eno b edanen i	R	116871	S , N. M	S FSC	PIFSC	PIC130720.01B
Ta mace hephe di	S	4971	C , A	S FSC	USNM	484878
T iop ad nc	I -P fi	79924	B A , I	S FSC	K-RASI	TADU080423
Ziphi ca i o i	C	S 2002-222	N , E	IO		
H						
Hippopo am amphibi	C		C	C		
Choe op i libe ien i	P	HMO71/0546/50	C	SL		
B						
O le co	A	693/05 4369	C	T		
T agelaph e ce	B	20080367M10	C	SL		
Ga ella a abica	A	634/0821/7/08	C	T		

AAD, A A D ; ADFG, A D ; C , C ; GINR, G I N R ; IO , I S L ; K , K , U H ; N C TA, N C T A ; PBB, P B , S A M ; PIFSC, NOAA, P fi B S C ; S FSC, NOAA, S B S C ; TJ, T J , C E ; USNM, S N M N H ; K-RASI, K RASI; SL, S L .

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