Beaked Whales

Natacha Aguilar de Soto

Centro Oceanográfico de Canarias (IEO/CSIC)

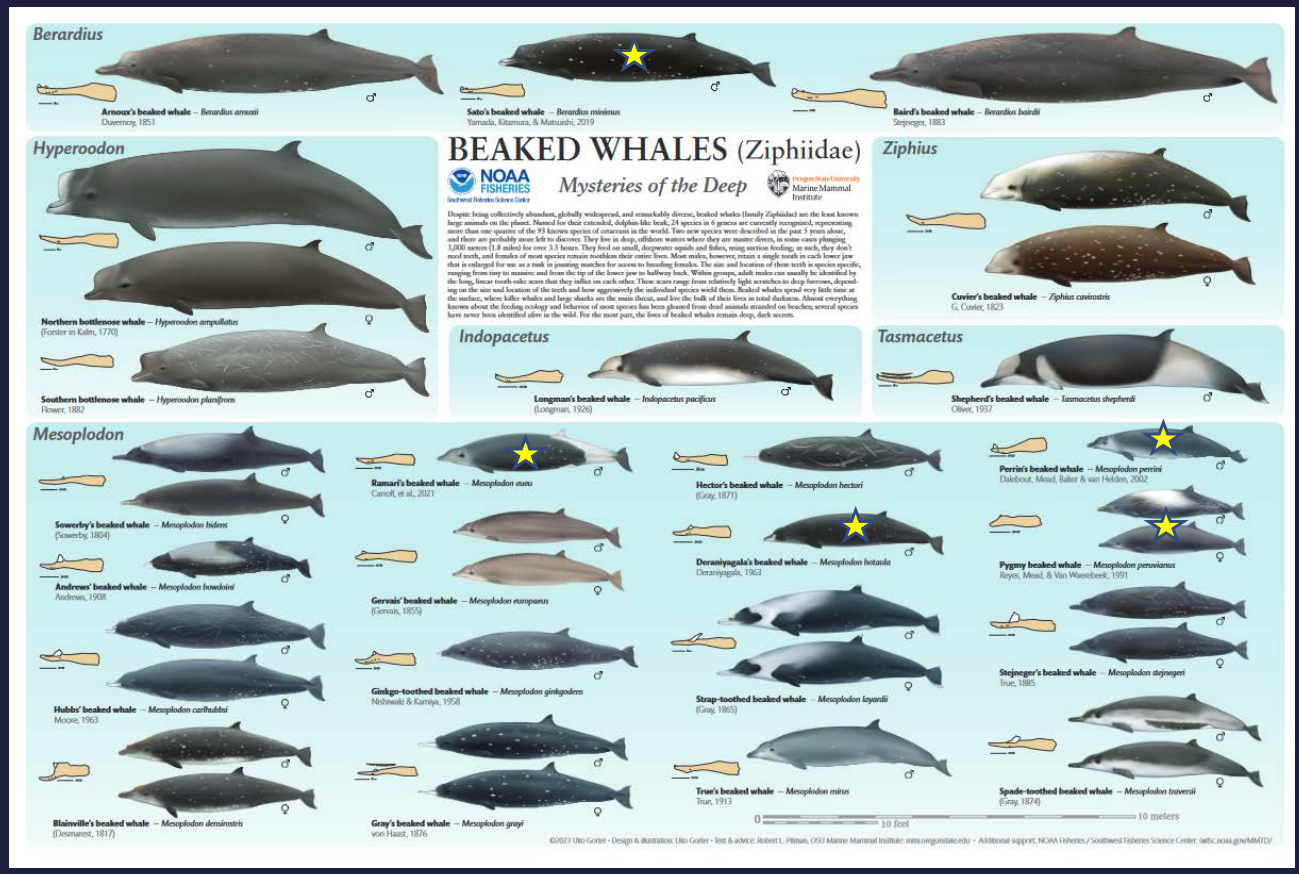
Ziphiidae: a successful family

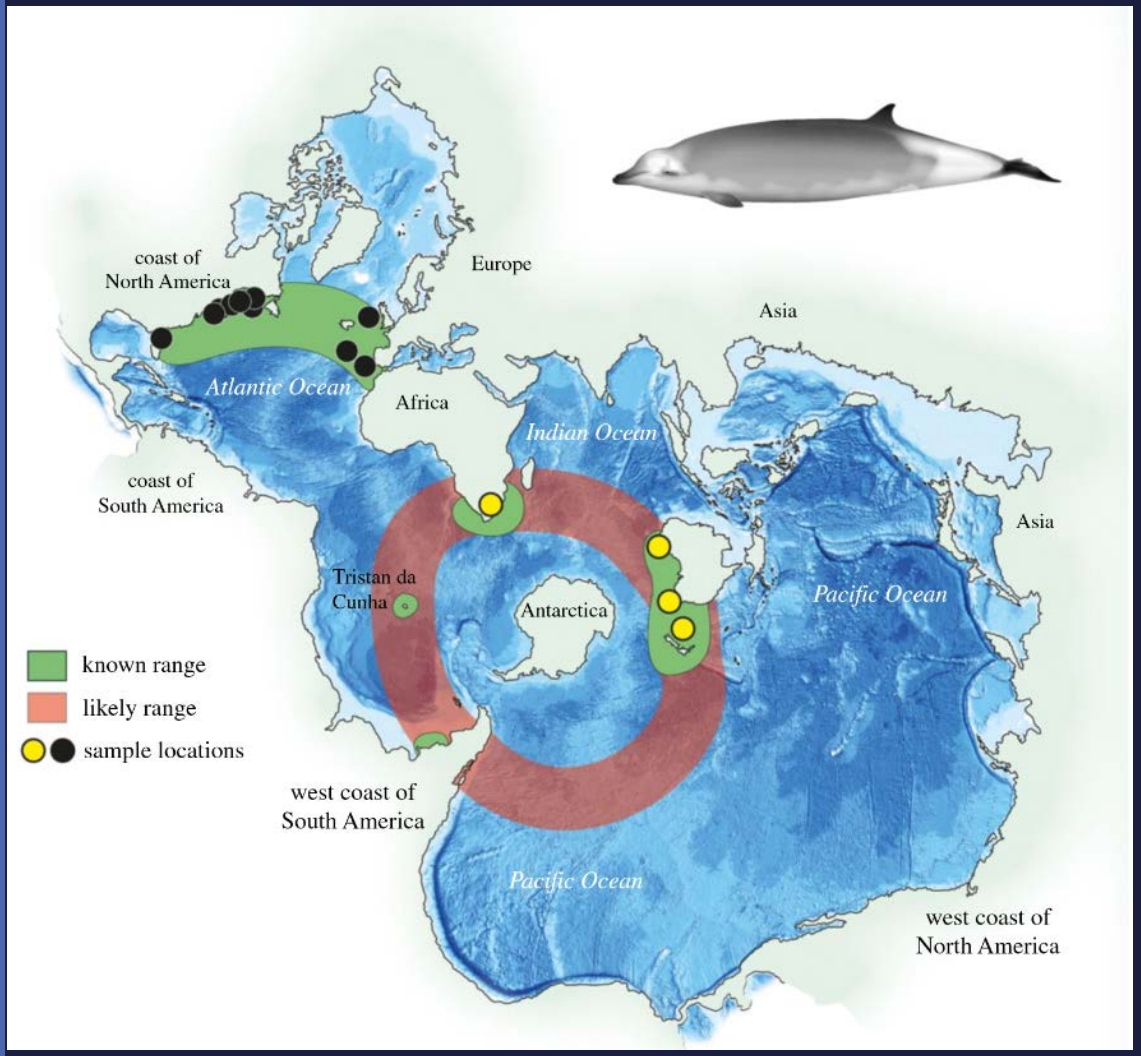
2nd most speciose family of cetaceans

24 beaked whale species

5 described in last decades

1 or + spp in all oceans





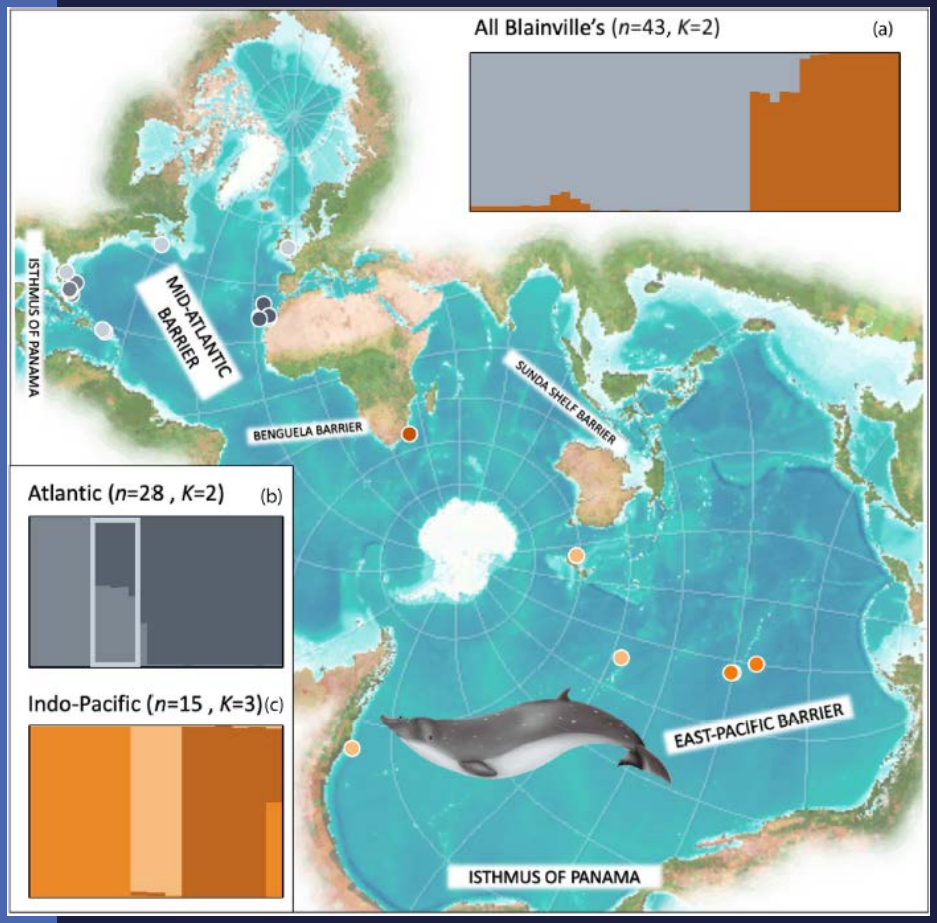
Carroll et al. 2023: Ramari's Beaked whale Mesoplodon eueu

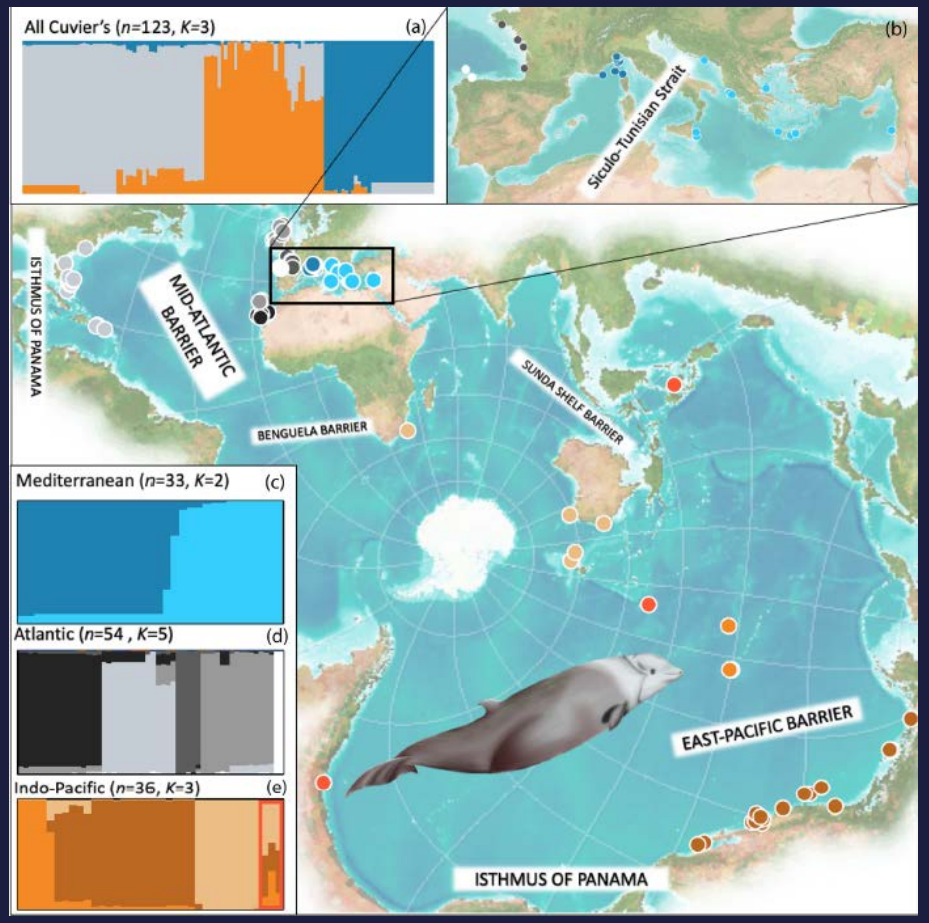
Europe: 6 species…many knowledge gaps

	IUCN EU / Glob	Nhat EU	Life History	Sociality	Foraging
Hyperoodon ampullatus	LC / NE	> 20,000	Incomplete ?	Incomplete ?	Specialized
Ziphius cavirostris	LC/DD / LC	Natl? / 5800 Med	?	Few data	Incomplete
Mesoplodon bidens	LC / LC	? > 3500	?	?	Incomplete
M. europaeus	LC / LC	?	Few data	Few data	Incomplete
M. densirostris	LC / LC	?	Few data	Incomplete	Incomplete
M. mirus	LC / LC	?	?	Few data	Incomplete

BLAINVILLE'S (*MESOPLODON DENSIROSTRIS*)

CUVIER's (*ZIPHIUS CAVIROSTRIS*)





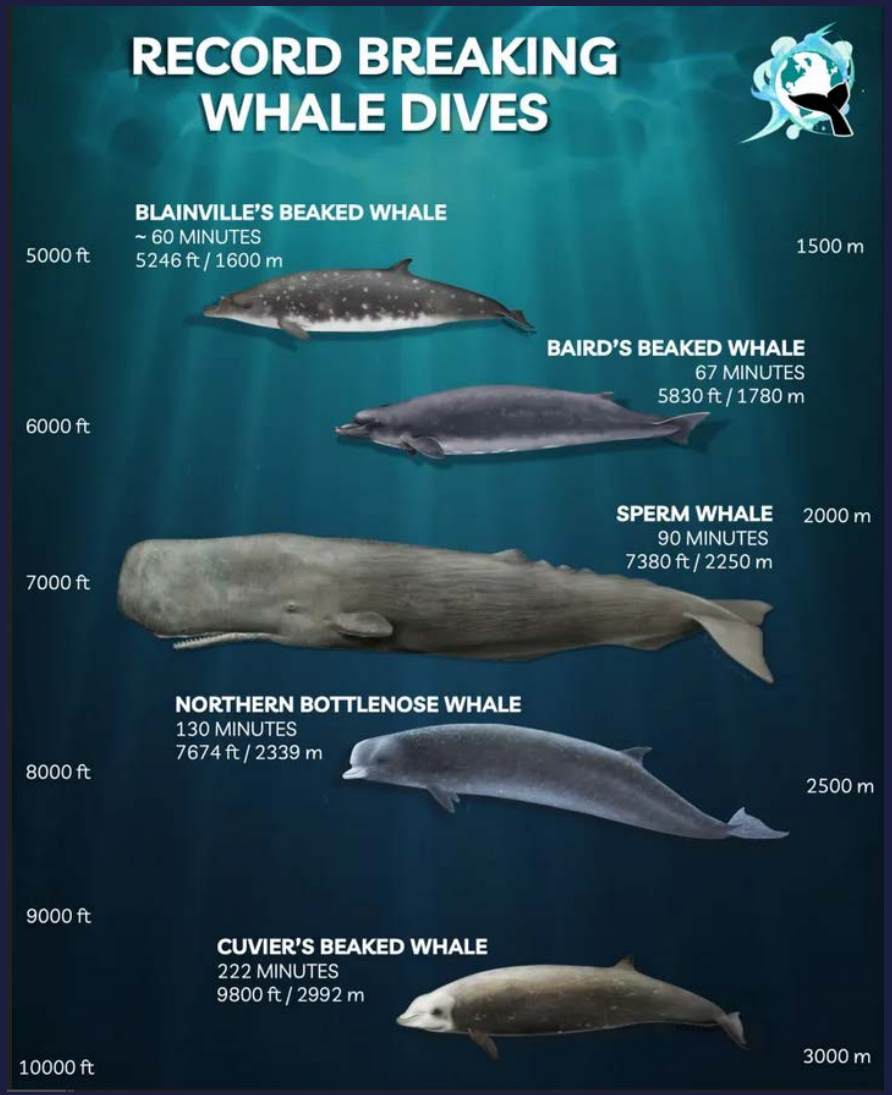
Onofriou et al. 2022

ESUs & DIPs
Evolutionary significant units & Demographically Independent Populations

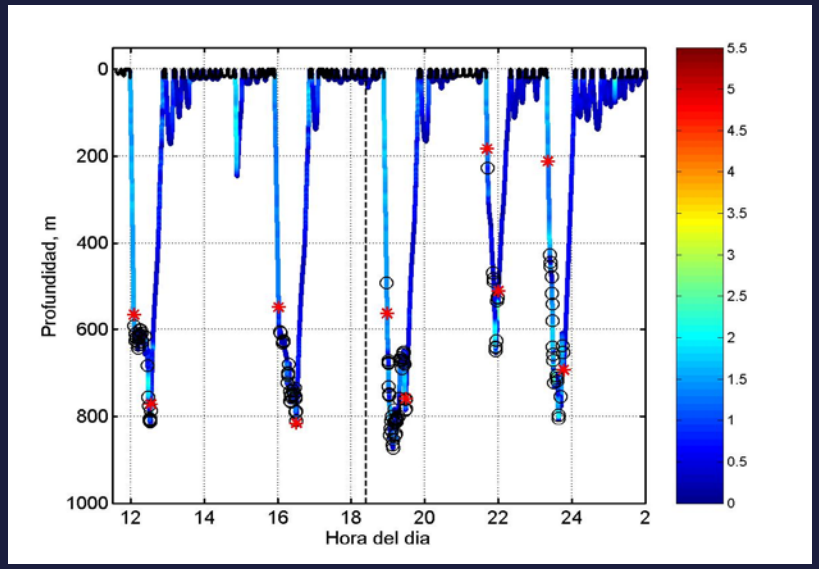
Species	Ocean Basin	Population ID	*n*	Sampling Region	Sampling Locality	Proposed ESUs	Proposed DIPs
Cuvier's	Atlantic	Atl_Carib	15	Caribbean	Bahamas, East USA, Puerto Rico, Virgin Islands	NW Atlantic	
		Atl_CanIs	17	Canary Islands	Canary Islands	NE Atlantic	Canary Islands
		Atl_NE	15	NE. Atlantic	Madeira, France, Ireland, Scotland		
		Atl_Sp	2	Spain	Spain		
		Atl_France	5	France	France		
	Indo-Pacific	Indo_Cent	5	Central Pacific	Hawai'i, Johnston Atoll	Central Pacific	Hawai'i
		Indo_Sou	9	S. Indo-Pacific	Australia, New Zealand, South Africa	S Hem	
		Indo_NE	19	NE Indo-Pacific	Mexico, West Canada, West USA	NE Pacific	
		Indo_Mix	3	S. Indo-Pacific	Chile, Samoa, Philipines		
	Med	Med_West	19	W. Med	Corsica, Italy-Ligurian Sea	W Med	W Med
		Med_East	14	E. Med	Croatia, Italy-Ionian Sea, Greece, Israel	E Med	E Med
Blainville's	Atlantic	Atl_Bah	7	Bahamas	Bahamas	NW Atlantic	Bahamas
		Atl_East	16	E. Atlantic	Madeira, Canary Islands	NE Atlantic	Canary Islands
		Atl_Oth	5	Admixed Atlantic	East USA, Puerto Rico, Canada, UK		
	Indo-Pacific	Indo_Haw	6	Hawaii	Hawai'i	Central Pacific	Hawai'i
		Indo_Afr	5	S. Africa	South Africa	S Hem	
		Indo_Sou	3	S. Pacific	French Polynesia, Chile		

Onofriou et al. 2022

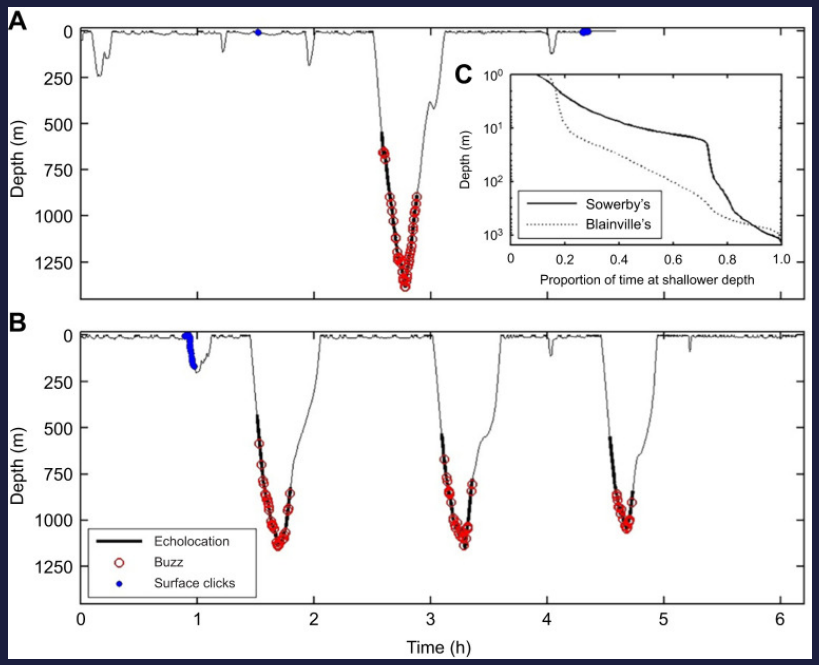
Niche diversification



Cuvier´s record dives
Schoor et al. 2014 / Quick et al. 2020



Tyack et al 2006, Aguilar Soto 2006 etc

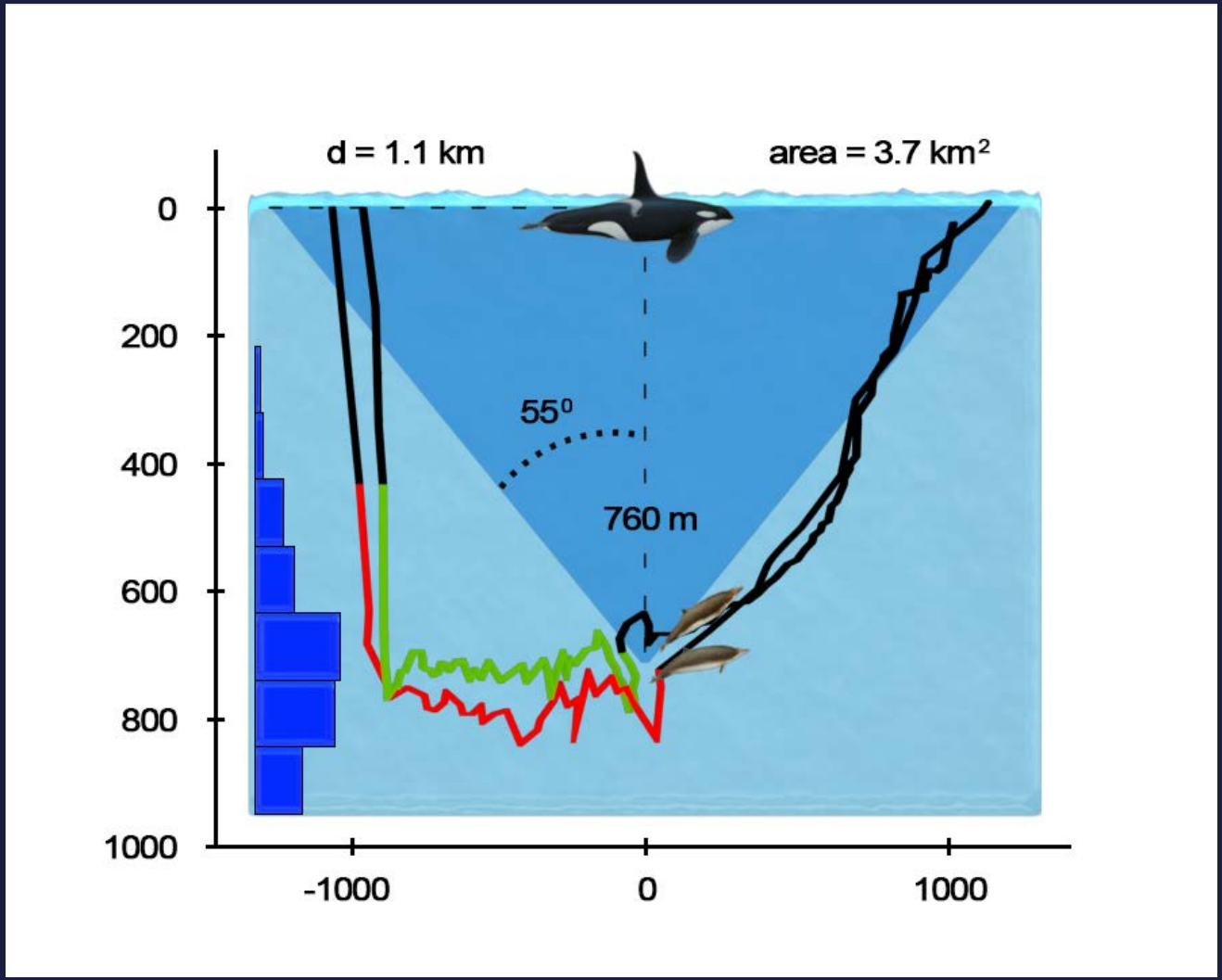


Visseur et al. 2022: Sowerby's are faster


1 April 2014
SE Crete, Mediterranean Sea
How many more whales must die
for the navy sonars to stop killing?
© L. Aggelopoulos / Pelagos Cetacean Research Institute 2014

Wellard R, et al. (2016)

Natural behavioural success
Non adaptative for new human disturbances



Aguilar de Soto et al 2020

PROCEEDINGS OF THE WORKSHOP ON
ACTIVE SONAR AND CETACEANS

Held at the
European Cetacean Society's 17th Annual Conference,
Auditorio Alfredo Kraus, Las Palmas, Gran Canaria, 8th March 2003

Editors:

Peter GH Evans[1, 2] and Lee A. Miller[3]

[1] Sea Watch Foundation, 11 Jersey Road, Oxford 0X4 4RT, UK
[2] Dept. of Zoology, University of Oxford, South Parks Road, Oxford 0X1 3PS, UK
[3] Institute of Biology, SDU-Odense, Campusvej 55, DK-5230 Odense M, Denmark

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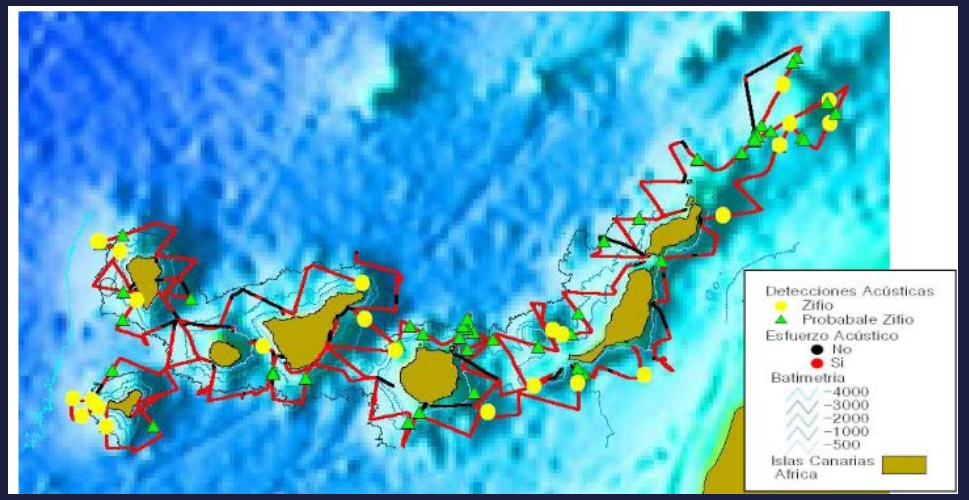
FEB 2004

MINISTERIO DE DEFENSA

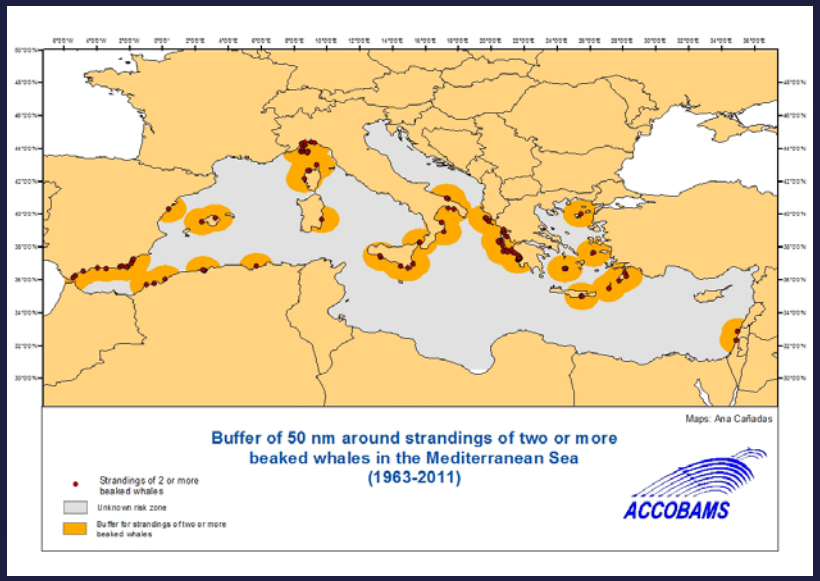
BOE núm. 304

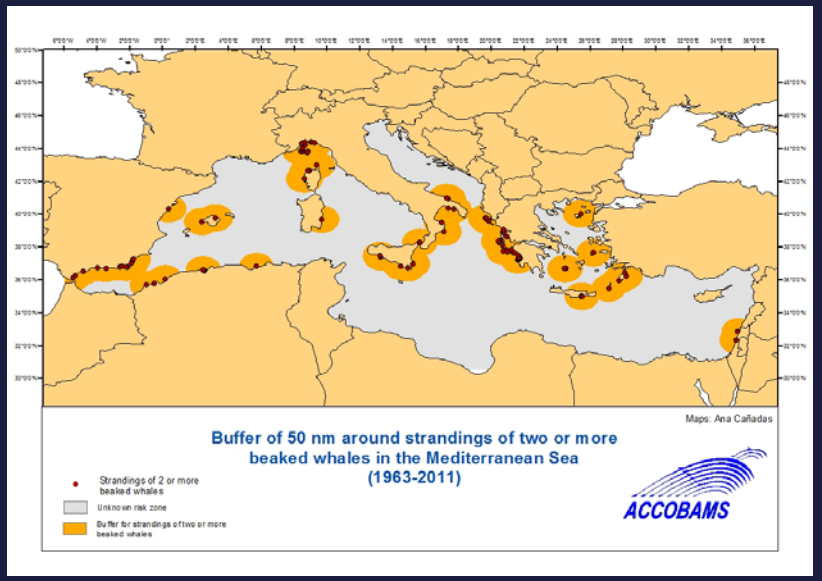
21974 *RESOLUCIÓN 145/2007, de 12 de diciembre, de la Secretaría General Técnica, por la que se publica el Convenio de colaboración entre el Ministerio de Defensa, el Ministerio de Medio Ambiente y la Consejería de Medio Ambiente y Ordenación Territorial del Gobierno de Canarias, para la conservación e investigación de las poblaciones de cetáceos para evitar los varamientos accidentales.*

15. En tanto no se identifiquen las zonas hábitat permanentes de los zifios, el Ministerio de Defensa se compromete a no realizar ejercicios que impliquen el uso de sonares activos antisubmarinos y explosiones submarinas dentro de las 50 millas náuticas a poniente y al sur de las islas más occidentales del archipiélago Canario. En cuanto a las zonas hábitat que estén identificadas, el Ministerio de Defensa se compromete a no efectuar dichos ejercicios a menos de 50 millas náuticas del límite exterior de estas zonas.



Increase moratorium to 100 nm
(non official yet, but applied)


Maps: Ana Cañadas
Buffer of 50 nm around strandings of two or more beaked whales in the Mediterranean Sea (1963-2011)
Strandings of 2 or more beaked whales
Unknown risk zone
Buffer for strandings of two or more beaked whales
ACCOBAMS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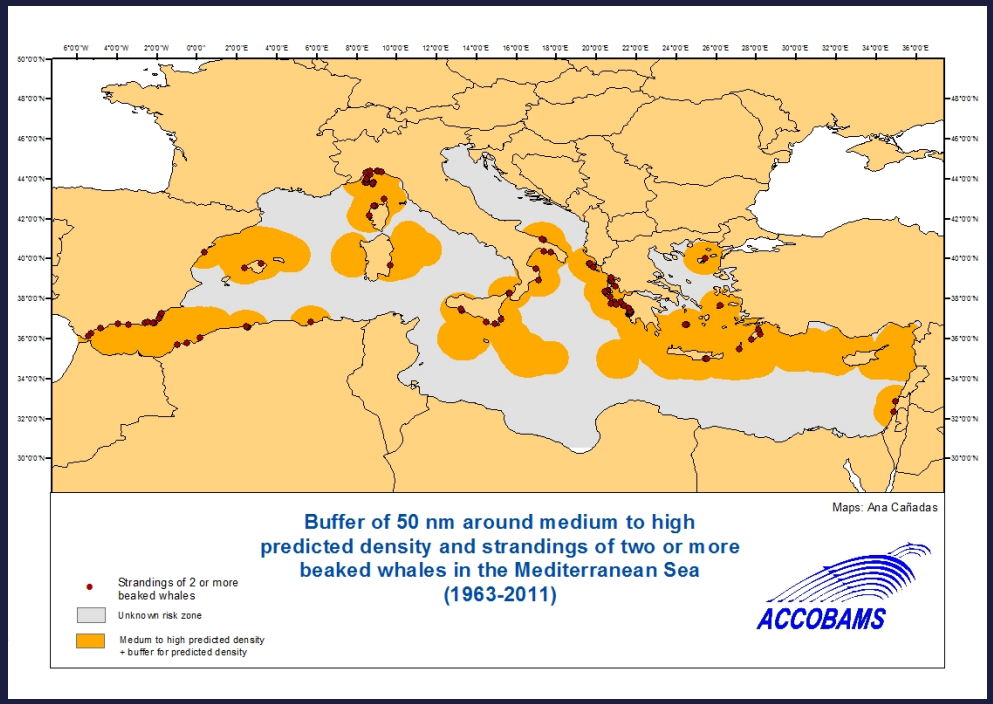
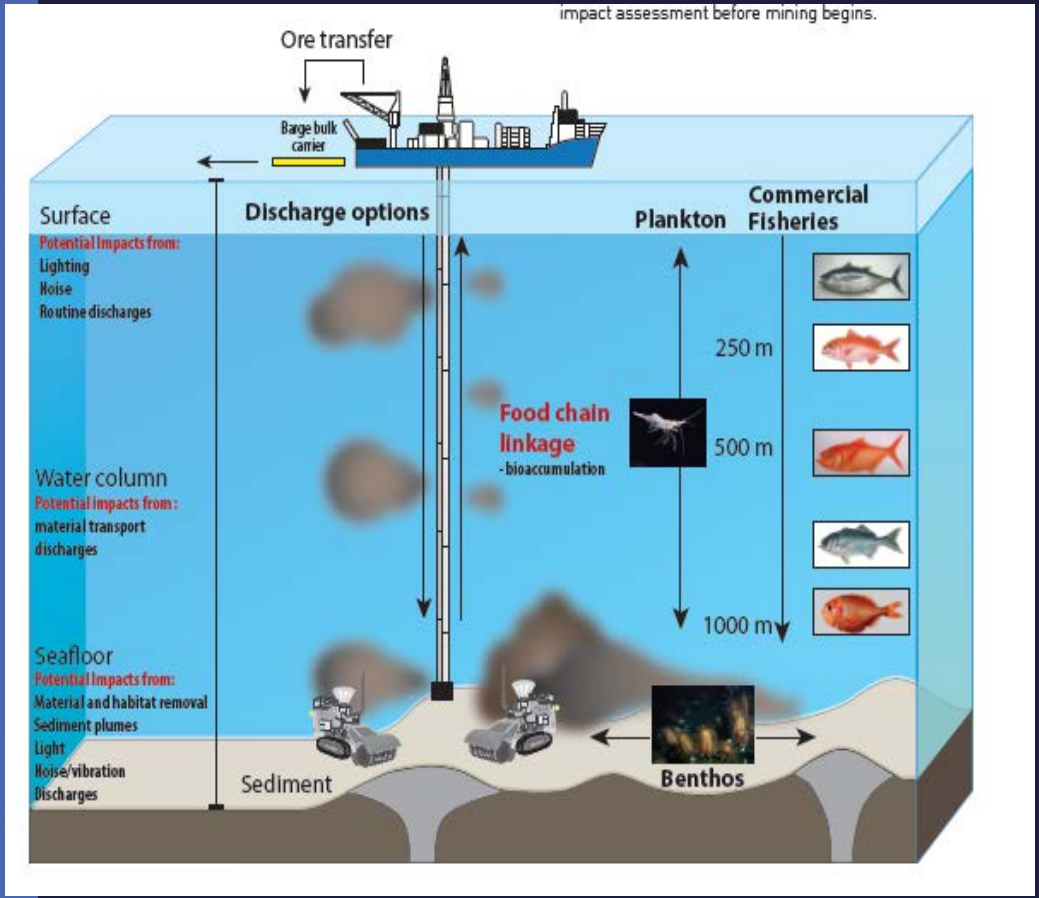
ACCOBAMS


Maps: Ana Cañadas
Buffer of 50 nm around medium to high predicted density and strandings of two or more beaked whales in the Mediterranean Sea (1963-2011)
Strandings of 2 or more beaked whales
Unknown risk zone
Medium to high predicted density + buffer for predicted density
ACCOBAMS

Is their deep habitat safe?



Whale Found With 30+ Plastic Bags in Its Stomach ...
ecowatch.com

Please come to study us, and be secure and audacious when asking for conservation actions in the deep oceans

THANKS!