

SPAIN. PROGRESS REPORT ON CETACEAN RESEARCH, MAY 2001 TO MARCH 2002, WITH STATISTICAL DATA FOR THE CALENDAR YEAR 2001

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This report summarises information obtained from: Institute of Technology, Fisheries and Food of the Basque Country (AZTI). Marine Animal Rescue Centre of Catalunya (CRAM). Department of Animal Biology (Marine Sciences). Faculty of Biology. La Laguna University (Canary Is.) (ULL). Tenerife Conservation (TC). GRAMPUS and SECEM. Department of Animal Biology of the University of Valencia (UV). Spanish Institute of Oceanography of the Ministry of Science and Technology (IEO).

1. Species and stocks studied

Common name	Scientific name	Area/stock(s)	Items referred to
Common dolphin	<i>Delphinus delphis</i>	NE Atlantic / Mediterranean	4.3, 7.1, 7.2
Striped dolphin	<i>Stenella coeruleoalba</i>	Mediterranean	4.3, 7.1
Atlantic spotted dolphin	<i>Stenella frontalis</i>	Canary Is.	7.1, 7.2
White sided dolphin	<i>Lagenorhynchus acutus</i>	NW Atlantic	7.1
Peale's dolphin	<i>Lagenorhynchus australis</i>	SW Atlantic	7.2
Bottlenose dolphin	<i>Tursiops truncatus</i>	NE Atlantic/ Mediterranean/ Canary Is.	3.1.1, 4.3, 7.1
Risso's dolphin	<i>Grampus griseus</i>	Mediterranean	4.3
Harbour porpoise	<i>Phocoena phocoena</i>	NE Atlantic	4.3, 7.1, 7.2
Unidentified dolphins		NW Atlantic	7.1, 7.2
Short-finned pilot whale	<i>Globicephala macrorhynchus</i>	Canary Is.	3.1.1
Long-finned pilot whale	<i>Globicephala melas</i>	NE Atlantic/ Mediterranean	4.3
Sperm whale	<i>Physeter macrocephalus</i>	Mediterranean/ Canary Is.	6.2
Pygmy sperm whale	<i>Kogia breviceps</i>	NE Atlantic/ Canary Is.	4.3, 7.1
Cuvier's beaked whale	<i>Ziphius cavirostris</i>	Canary Is.	7.2
Minke whale	<i>Balaenoptera acutorostrata</i>	NE Atlantic	4.3, 6.3
Bryde's whale	<i>Balaenoptera edeni</i>	Canary Is.	6.3
Unidentified orqual		Canary Is.	6.3

2. Sightings data

2.1 Field work

2.1.1 SYSTEMATIC

Aerial sighting surveys, sponsored by the Ministry of Environment, are being made since 2000 to estimate relative abundance of cetaceans along the waters of Valencia and Murcia. (UV).

Surveys from the "Monachus" boat are being carried out around the Canary Is. (TC).

2.1.2 OPPORTUNISTIC, PLATFORMS OF OPPORTUNITY

Opportunistic observations were carried out during transects for red tides monitoring in the Galician rías and fishing and oceanographic surveys along the Mediterranean coast (IEO).

Opportunistic observations are made in the Catalanian mediterranean coast by the Sea Civil Guard and reported to the CRAM.

Whale watching boats are used occasionally as platforms of opportunity off the SW coast of Tenerife (ULL).

3. Marking data

3.1 Field work

3.1.1 NATURAL MARKING DATA

Species	Feature	Area/stock	Calendar year/season/ no. photographed	Catalogued (Y/N)	Catalogue total	Contact person/institute
Short finned pilot whale	Fin	Canary Is.		N		ULL
Bottlenose dolphin	Fin	Canary Is.		Y	145	T C

4. Tissue/biological samples collected

4.1 Biopsy samples

None.

4.2 Samples from directed catches or bycatches

None.

4.3 Samples from stranded animals

Species	Area/stock	Year 2001	Archived (Y/N)	Tissue type(s)*	Contact person/institute
Common dolphin	NE Atlantic/ Mediterranean	1/?	Y	All tissues	GRAMPUS/ Raga (UV)
Striped dolphin	NE Atlantic /Mediterranean	5/?	Y	All tissues	CRAM/ Raga (UV)
Bottlenose dolphin	NE Atlantic/ Mediterranean	1/1+?	Y	All tissues	GRAMPUS / CRAM/ Raga (UV)
Risso's dolphin	Mediterranean	1/?	Y	All tissues	CRAM/ Raga (UV)
Harbour porpoise	N E Atlantic	2	Y	All tissues	GRAMPUS
Long-finned pilot whale	N E Atlantic/ Mediterranean	1/?	Y	All tissues	GRAMPUS/ Raga (UV)
Pygmy sperm whale	N E Atlantic	1	Y	All tissues	Lens (IEO)
Minke whale	N E Atlantic	1	Y	Skin, blubber, muscle	GRAMPUS

5. Pollution studies

Pollution studies to determine heavy metals in cetaceans from the Gulf of Cadiz are being carried out. (GRAMPUS and SECCEM).

6. Statistics for large cetaceans

6.1 Direct catches (commercial, aboriginal and scientific permits) for the calendar year 2001

None.

6.2 Other non-natural mortality for the calendar year 2001

Species	Area/stock	Males	Females	Total	Cause	Methodology
Sperm whale	Canary Is.	1	1	3	Ship strike	Post mortem

6.3 Earlier years' statistics

Revised statistics for the calendar year 2000

Species	Area/stock	Males	Females	Total	Cause	Methodology
Sperm whale	Canary Is.		2	5	Ship strike	Post-mortem
Bryde's whale	Canary Is			1	Ship strike	Post-mortem
Unidentified Rorqual	Canary Is			1	Ship strike	Observed collision
Minke whale	NE Atlantic			1	Incidental catch	Stranding network

7. Statistics for small cetaceans

7.1 For the calendar year 2001

Species	Area/stock	Directed catch		Incidental mortality			Live-capture
		Reported	Est. total	Reported	Est. total	Source*	Reported
Common dolphin	Canary Is.			3		Fishing interaction	
Common dolphin	NE Atlantic			1			
Striped dolphin	Mediterranean			1		Trammel net	
Atlantic spotted dolphin	Canary Is.			1		Fishing interaction	
Bottlenose dolphin	NE Atlantic			2			
Harbour porpoise	NE Atlantic			1			
Pygmy sperm whale	Canary Is.			1		Ship strike	
White sided dolphin	NW Atlantic			1		Bottom trawl	
Unidentified dolphin	NW Atlantic			1		Bottom trawl	

7.2 Earlier years' statistics

Revised statistics for the calendar year 2000.

Species	Area/stock	Directed catch		Incidental mortality			Live-capture
		Reported	Est. total	Reported	Est. total	Source*	Reported
Cuvier's beaked whale	Canary Is			1		Ship strike	
Probable pilot whale	Canary Is			2		Ship strike	
Common dolphin	NE Atlantic			3		Trawl/Gillnet/ Net	
Peale's dolphin	SW Atlantic			1		Trawl	
Atlantic spotted dolphin	Central N Atlantic			1		Longline	
Harbour porpoise	NE Atlantic			2		Net	
Unidentified dolphin	NE Atlantic			12		Pair trawl	

8. Strandings

Different organizations and institutions collect information on strandings along the Spanish coasts. In the Mediterranean: Marine Animals Recuperation Centre of Catalunya (CRAM) and the University of Valencia (UV). In the Atlantic: GRAMPUS, CEMMA, SGHN, UO, MMC, IEO.

9. Other studies and analyses

Observers to monitor fishing fleets from the Basque Country also collected information on incidental catches of cetaceans. In 2001 no incidental catches were reported in neither of the following fisheries: traditional trawl in ICES areas VIII a, b, d (330 hauls observed), pair trawl in areas VIII a, b, d and VII (250 hauls) and gillnet in area VIII c (12 fishing trips). (AZTI).

Incidental catches of cetaceans were monitored in different long distance Spanish fishing fleets. Observer's schemes were in operation in the trawl fisheries in the SW Atlantic, NAFO and Svalbard areas (1858, 1159, 323 hauls observed respectively) as well as in Hatton Bank (786 hauls) and Reikjanes Ridge (174 hauls). The longline fishery for swordfish was also monitored in the Atlantic and Indian Oceans (356 and 106 sets respectively). Observer's reporting schemes were also in operation in the tuna longline, trawl and purse seine fishing fleets in the Mediterranean. Observers collected information on incidental catches and sightings of cetaceans in experimental longline fishing surveys carried out in the Atlantic and Pacific Oceans (IEO).

Compliance with the whale watching guidelines in Tenerife were monitored and acoustic studies of whale watching boats were carried out by the ULL.

Food habits studies in cetaceans from the Gulf of Cadiz are being carried out by GRAMPUS and SECER.

10. Literature cited

None.

11. Publications

11.1 Published or 'In Press' papers only

Aguilar, N., Carrillo, M., Delgado, I., Díaz, F., Brito, A. 2000. "Fast ferry impact on cetacean populations in the Canary Islands". *European Research on Cetaceans*-14. P.G.H. Evans, E. Rogan. Eds. Cork. Ireland.

Aznar, F.J., Balbuena, J.A., Fernandez, M., Raga, J.A. 2001. Establishing the relative importance of sympatric definitive hosts in the transmission of the sealworm, *Pseudoterranova decipiens*: a host-community approach. En: G. Desportes & G. McClelland (Eds.). *Sealworms in the North Atlantic: Ecology and population dynamics*. NAMMCO Sci. Publ, 3: 161-171.

Aznar, F.J., Balbuena, J.A., Fernandez, M., Raga, J.A. 2002. Living together: the parasites of marine mammals. En: P.G.E. Evans & J.A. Raga (Eds.). *Marine Mammals Biology and Conservation*, Kluwer Academic/Plenum Publishers, Nueva York, 385-423.

Aznar, F.J., Bush, A.O., Balbuena, J.A., Raga, J.A. 2001. *Corynosoma cetaceum* in the stomach of franciscanas, *Pontoporia blainvillei* (Cetacea): an exceptional case of habitat selection by an Acanthocephalan. *Journal of Parasitology*, 87: 536-541.

Aznar, F.J., Bush, A.O., Raga, J.A. 2002. Variability of trunk spines in the Acanthocephalan *Corynosoma cetaceum*: the role of physical constraints. *Invertebrate Biology*, 121: 104-114.

Berón-Vera, B., Pedraza, S.N., Raga, J.A., Gil de Perterra, A., Crespo, E.A., Alonso, M.K., Goodall, R.N.P. 2001. Gastrointestinal helminths of commerson's dolphins, *Cephalorhynchus commersonii*, from central Patagonia and Tierra del Fuego. *Diseases of Aquatic Organisms*, 47:201-208.

Blanco, C., Salomón, O., Raga, J.A. 2001. Diet of the bottlenose dolphin (*Tursiops truncatus*) in the Western Mediterranean Sea. *Journal of the Marine Biological Association of the United Kingdom*, 81: 1053-1058.

Brito, A., Falcón, J., Aguilar, N., Pascual, P. "Fauna vertebrada marina" In: *Naturaleza de las Islas Canarias*". J. M. Fernández-Palacios and J. L. Martín Esquivel, Ed. Turquesa. Santa Cruz de Tenerife. *In press*.

Carrillo, M., Martín, V., Herrera, R. 2001. Fast Ferries en Canarias. *Revista de Medio Ambiente de la Consejería de Política Territorial del Gobierno de Canarias*.

Díaz, F., Aguilar, N. 2000. The Humpback whale (*Megaptera novaeangliae*) in the Canary Islands. *European Research on Cetaceans*-14. P.G.H. Evans, E. Rogan. Eds. Cork. Ireland.

Raga, J.A., Fernandez, M., Balbuena, J.A., Aznar, F.J. 2001. Parasites. En: W.F. Perrin, B. Würsing & H.G.M. Thewissen (Eds.). *Encyclopedia of Marine Mammals*, Academic Press, San Diego, 867-876.

Rivilla, J. C., Alís, S., Máñez, M., Hidalgo, S., González, A. J. y Jiménez, F. J. 2002. Cetáceos varados en la costa de Doñana. *Quercus*, 193.

Tregenza, N.; Aguilar, N; Carrillo, M.; Delgado, I.; Díaz, F. & Brito, A. 2000. A simple mathematical model for collisions of fast boats with big cetaceans". *European Research on Cetaceans*-14. P.G.H. Evans, E. Rogan. Eds. Cork. Ireland.

Van Bressem, M.F., Van Waerebeek K., Jepson, P., Raga, J.A., Duignan, P.J., Nielsen, O., Di Benedetto, A.P., Siciliano, S., Ramos, R., Kant, W., Peddemors, V., Kinoshita, R., Ross, P.S., López-Fernandez, A., Evans, K., Crespo, E., Barrett, T. 2001. An insight into the epidemiology of dolphin morbillivirus worldwide. *Veterinary Microbiology* 81: 287-304.

Van Bressem, M.F., Van Waerebeek K., Raga, J.A., Godfroid, J., Brew, S.D., Macmillan, A.P. 2001. Serological evidence for *Brucella* sp. infection in Odontocetes from the South Pacific and the Mediterranean Sea. *Veterinary Record*, 148: 657-661.

11.2 Unpublished literature

Abad, E., Valeiras, J., Gomez, M. J., Garcia-Isarch, E., Baro, J., Camiñas, J. A. Interacción de las pesquerías de arrastre y cerco con delfín común *Delphinus delphis* y delfín mular *Tursiops truncatus* en el Mar de Alborán. 2º Simposio de la Sociedad Española de Cetáceos. Valsain, Segovia. Noviembre 2001.

Alís, S., Rivilla, J. C., Valdes, P., Máñez, M., González, A. J., Jiménez, F. J., Cáceres, C., Davila, C., Hidalgo, S., Salas, M., Escamilla, J. M. and Witte, R. Cetacean strandings in Doñana littoral, southwest of Iberian Peninsula. Proceedings of the *European Cetacean Society*, Rome, (Italy). May, 2001. (poster)

Rivilla, J. C. y Alís, S. Seguimiento de los varamientos de cetáceos en el litoral de Doñana. Estudio patológico y toxicológico de los ejemplares y análisis de la dieta. Colectivo GRAMPUS y Grupo Mamíferos Marinos de la SECEM. *Informe Parque Nacional de Doñana*, 2001.

Valdés, P. Alís, S., Rivilla, J.C., Hidalgo, S., Cáceres, C., Salas, M. Alimentación de cetáceos en el litoral onubense (Sur atlántico ibérico). *V Jornadas Españolas para el Estudio y Conservación de Mamíferos SECEM*. Vitoria. Noviembre 2001

Valeiras, J., y Camiñas J. A. Captura accidental de mamíferos marinos en las pesquerías españolas de palangre de pez espada y túnidos en el Mediterráneo. 2º Simposio de la Sociedad Española de Cetáceos. Valsain, Segovia. Noviembre 2001.