

OIE Collaborating Centres Reports Activities

Activities in 2021

This report has been submitted : 2022-01-18 22:44:07

Title of collaborating centre:	Health of Marine Mammals
Address of Collaborating Centre:	University Research Institute of Animal Health and Food Safety (IUSA-ULPGC) Atlantic Center for Cetacean Research (ACCR) Campus de Cardones Trasmontaña s/n 35416 Arucas Las Palmas de Gran Canaria SPAIN
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Name of Director of Institute (Responsible Official):	Antonio Fernández
Name (including Title and Position) of Head of the Collaborating Centre (formally OIE Contact Point):	Antonio Fernández, Head of the IUSA-ULPGC
Name of writer:	Antonio Fernandez and Cristina Casalone

ToR: To provide services to the OIE, in particular within the region, in the designated specialty, in support of the implementation of OIE policies and, where required, seek for collaboration with OIE Reference Laboratories

ToR: To identify and maintain existing expertise, in particular within its region

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by the OIE

Disease control	
Title of activity	Scope
Peponocephala electra Mass stranding in Ghana, April 2021	Assistance during the mass stranding as well as "online" guidance for the development and realization of necropsies. Veterinary pathology IUSA Team.
Fin whale mortality event	Assistance to diagnostic laboratory of IZSME-Napoli (in collaboration with University of Padua) on a fin whale mortality event occurred along coastline of Campania region, Italy, January, 2021, with regard to the collection, analysis and definition of cause of death.
Epidemiology, surveillance, risk assessment, modelling	
Title of activity	Scope
CEMMA stranding network collaboration	Histopathologic analysis of samples from stranded animals in the coasts of Galicia, Spain
Andalucía stranding network collaboration.	Histopathologic and molecular analysis of samples from stranded animals in the coasts of Andalucía, Spain
Asturias stranding network collaboration	Histopathologic and molecular analysis of samples from stranded animals in the coasts of Asturias, Spain
Grey whale migration	Surveillance of grey whale migration along the Italian coastline (April 2021, Ponza)

<p>Phylo-geographic analysis of <i>Brucella ceti</i> strains in marine mammals of Italy (WGS) by OIE Reference Laboratory for Brucellosis (IZSAM, Italy), recovered by C.Re.Di.Ma. diagnostic coordination activity, Italy</p>	<p>Investigation on <i>Brucella ceti</i> infection in marine mammals in Italy, giving insights on the phylogenetic structure of Mediterranean isolates</p>
<p>Genomic sequencing of morbillivirus strains in marine mammals of Italy, recovered by C.Re.Di.Ma. diagnostic coordination activity, Italy</p>	<p>Investigation on morbillivirus infection in marine mammals in Italy, giving insights on genome sequences of strains circulating</p>
<p>Implementation of the International Whaling Commission (IWC) National Progress Report (PR)</p>	<p>Implementation of the National Progress Report (PR) with data related to C.Re.Di.Ma database and 2020 ship strike and by catch events recorded in Italy.</p>
<p>GLOBICAN</p>	<p>Sanitary evaluation of the local groups of <i>G. macrorhynchus</i> in the Canary Islands, as well as of the risk factors for their conservation associated with the anthropic action on their areas of residency</p>
<p>Environmental pollutants</p>	<p>Biological study of the environmental pollutants that affect cetaceans in Gran Canaria.</p>
<p>Training, capacity building</p>	
<p>Title of activity</p>	<p>Scope</p>
<p>Stranding first aid</p>	<p>Simulation of a stranding situation to educate the general public of the Canary Islands on what to do in case of stranding.</p>

<p>Round table “ Regional experiences on stranding events: discussion of case reports”</p>	<p>This panel discussion was held within the Annual Congress of C.Re.Di.Ma. on October 12th, 2021 (virtual event). The aim was to increase the participants' knowledge in the diagnostic field and to allow an effective exchange of views for the evaluation of diagnostic cases of doubtful interpretation.</p> <p>Participants: Italian Network of Istituti Zooprofilattici Sperimentali- Italian National Public Health Services - Italian Universities and ULPGC</p>
<p>SARS-CoV-2 sampling</p>	<p>Indications for SARS-Co-2 marine mammal sampling management have been provided to Italian Network of Istituti Zooprofilattici Sperimentali, Italian Universities and ULPGC by a virtual meeting (January 26th, 2021) and registered email</p>
<p>Gastro-intestinal tract sampling</p>	<p>Indications for the analysis of the gastrointestinal tract of marine mammals by a multidisciplinary approach with a new multi-sieves tool have been provided within the Annual Congress of C.Re.Di.Ma. on October 12th, 2021 (virtual event) and registered e-mail.</p>
Zoonoses	
Title of activity	Scope
<p>Emerging and re-emerging zoonosis surveillance in marine mammals (i.e. brucellosis, salmonellosis, toxoplasmosis, etc) in Italy</p>	<p>Coordination of surveillance and control activities performed by Italian National Public Health Services (Istituti Zooprofilattici Sperimentali network)</p>
<p>SARS-CoV-2 sampling</p>	<p>Sampling of marine mammals from the Canary Islands stranding network for the determination of SARS-CoV-2</p>

SARS-CoV-2 sampling	Sampling of animals from the Loro Parque Zoo, Tenerife, for the determination of SARS-CoV-2
Animal welfare	
Title of activity	Scope
Encouragement of Whale Watching Activities	Encouragement of the ecotourist whale watching activities as a model of sustainable economic development as well as of protection and conservation of the cetacean populations in the Macaronesian Area.
Diagnosis, biotechnology and laboratory	
Title of activity	Scope
Histopathological and molecular diagnostic	Collaboration with the General Direction of marine and terrestrial biodiversity in Ceuta, Spain, for the diagnostic of a stranding event in the coast of Ceuta
Histopathological and molecular diagnostic	Collaboration for the histopathological and molecular diagnostic of a Delphinus delphis stranded in the coast of Gibraltar
Decompressive pathology in cetaceans	Development of diagnostic tools for the decompressive pathology in cetaceans, as well as study of the action mechanisms of the disease.

ToR : To propose or develop methods and procedures that facilitate harmonisation of international standards and guidelines applicable to the designated specialty

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the surveillance and control of animal diseases, food safety or animal welfare

Proposal title	Scope/Content	Applicable area
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<p>Development of a multisieves tool to analyze the gastro-intestinal tract of marine mammals (paper: Corazzola, G.; Bains, M.; Grattarola, C.; Panti, C.; Marcer, F.; Garibaldi, F.; Berio, E.; Mancusi, C.; Galli, M.; Mazzariol, S.; et al. Analysis of the Gastro-Intestinal Tract of Marine Mammals: A Multidisciplinary Approach with a New Multi-Sieves Tool. <i>Animals</i> 2021, 11, 1824. https://doi.org/10.3390/ani11061824 (partnership C.Re.Di.Ma. -University of Padua-University of Siena)</p>	<p>Standardization of protocols for macro-meso-micro plastic detection and quantification</p>	<p><input type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare</p>
<p>Development of a syndromic surveillance tool to monitor stranding trends, useful for early detection of Unusual Mortality Events (UMEs)</p>	<p>Monitor stranding trends along Italian coastline; early detection of Unusual Mortality Events (UMEs)</p>	<p><input checked="" type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input type="checkbox"/> Animal welfare</p>
<p>Montoto-Martínez T, De la Fuente J, Puig-Lozano R, Marques N, Arbelo M, Hernández-Brito JJ, Fernández A, Gelado-Caballero MD. Microplastics, bisphenols, phthalates and pesticides in odontocete species in the Macaronesian Region (Eastern North Atlantic) <i>Marine pollution bulletin</i>, 173, 113105 (2021)</p>	<p>Standardization of protocols for macro-meso-micro plastic detection and quantification</p>	<p><input type="checkbox"/> Surveillance and control of animal diseases <input type="checkbox"/> Food safety <input checked="" type="checkbox"/> Animal welfare</p>

ToR: To establish and maintain a network with other OIE Collaborating Centres designated for the same specialty, and should the need arise, with Collaborating Centres in other disciplines

ToR: To carry out and/or coordinate scientific and technical studies in collaboration with other centres, laboratories or organisations

3. Did your Collaborating Centre maintain a network with other OIE Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
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<p>Cetaceans' strandings Emergency Response Team (CERT) of the University of Padua, Italy</p>	<p>Padua, Italy</p>	<p><input type="checkbox"/>Africa <input type="checkbox"/>Americas <input type="checkbox"/>Asia and Pacific <input checked="" type="checkbox"/>Europe <input type="checkbox"/>Middle East</p>	<p>Collaboration with the task force to intervene in case of stranding of live animals, large whales, mass strandings, and Unusual Mortality Events (UMEs), along the whole Italian peninsula.</p>
<p>Istituti Zooprofilattici Sperimentali diagnostic network (IZSPLV, IZSLT, IZSME, IZSSA, IZSSI, IZSPB, IZSAM, IZSUM, IZSLER, IZSVE)</p>	<p>Italy</p>	<p><input type="checkbox"/>Africa <input type="checkbox"/>Americas <input type="checkbox"/>Asia and Pacific <input checked="" type="checkbox"/>Europe <input type="checkbox"/>Middle East</p>	<p>Coordination of diagnostic investigations and data collection on stranded marine mammals</p>
<p>International Whaling Commission (IWC)</p>	<p>Impington, Cambridge, UK</p>	<p><input type="checkbox"/>Africa <input type="checkbox"/>Americas <input type="checkbox"/>Asia and Pacific <input checked="" type="checkbox"/>Europe <input type="checkbox"/>Middle East</p>	<p>Updating of the National Progress Report (PR) with data related to C.Re.Di.Ma database and 2020 ship strike and by catch events recorded in Italy.</p>

Stazione Zoologica A. Dohrn, Naples, Italy	Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	<p>Collaboration in the management of a fin whale stranding, along Campanian coastline (Italy, January , 2021)</p>
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4. Did your Collaborating Centre maintain a network with other OIE Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Ministry of Agriculture, Fishing and food, and the University of León	Spain	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Investigation aimed to achieve sustainable fishing
Ecological transition council	Spain; Canary Islands.	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Elaboration of a stranding protocol for cetaceans in the Canary Islands.
Canary Islands Government and University of Las Palmas de Gran Canaria Foundation	Spain, Canary Islands	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Development of a network for the surveillance of wildlife in the Canary Islands.

Ministry of Agriculture, Fishing and Food	Spain, Canary Islands	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Agreement to promote investigation in marine mammal epidemiology and welfare, as well as to support the stranding network of the Canary Islands
OIE Reference Laboratory for Brucellosis	Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Brucella ceti typing
OIE Reference Laboratory for BSE	Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Neuropathological investigations and diagnostic tools
OIE Reference Laboratory for Scrapie	Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Neuropathological investigations and diagnostic tools
OIE Collaborating Centre for Diseases and the Animal/Human interface	Italy	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East	Diagnosis of zoonotic agents

ToR: To place expert consultants at the disposal of the OIE.

5. Did your Collaborating Centre place expert consultants at the disposal of the OIE?

Yes

Name of expert	Kind of consultancy	Subject
Antonio Fernández	Necropsy protocols	Online seminars for the realization of necropsies in cetaceans with Ghana
Antonio Fernández	Gas embolism diagnostic in cetaceans	Online Seminars for the realization of the gas embolism diagnostic in stranded cetaceans in Brazil.

ToR: To provide, within the designated specialty, scientific and technical training to personnel from OIE Member Countries

6. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by the OIE, to personnel from OIE Member Countries?

Yes

a) Technical visits: 0

b) Seminars: 0

c) Hands-on training courses: 0

d) Internships (>1 month): 1

Type of technical training provided (a, b, c or d)	Content	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
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<p>Cetacean Stranding response and necropsy: including mainly post-mortem examinations and sampling in both field and laboratory settings; live animal health assessment, and supportive care and biological data collection.</p>	<p>Histopathology and lab techniques: microscopical diagnosis of samples, perform diagnostic techniques when necessary (histochemistry, immunohistochemistry and molecular techniques).</p> <p>Stranding / necropsy readiness: cleaning, organizing, and maintaining stranding response and necropsy gear, equipment and facilities, restocking kits and supplies.</p> <p>Data entry / sample processing: entry of stranding data, organizing, cataloguing, disseminating and archiving of photos, datasheets, samples and tissue bank maintaining.</p> <p>Reports: write and/or reviewing pathological reports of the cases.</p> <p>Outreach: assist staff with training and outreach material preparation and organization, participate in opportunistic outreach at stranding sites, and participate in community and scientific events.</p>	<p>Argentina</p>	<p>1</p>
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ToR: To organise and participate in scientific meetings and other activities on behalf of the OIE

7. Did your Collaborating Centre organise or participate in the organisation of scientific meetings on behalf of the OIE?

Yes

National/International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
International	88th OIE General Session	-	05/2021	Online Seminar	1
International	David Thompson Foundation; Diseases of Cetaceans	-	03/12/2021	Online Seminar	1
International	1st International Virtual Meeting of Forensic Animal Sciences	-	06/2021	Online seminar	1

ToR: To collect, process, analyse, publish and disseminate data and information relevant to the designated specialty

8. Publication and dissemination of any information within the remit of the mandate given by the OIE that may be useful to Member Countries of the OIE

a) Articles published in peer-reviewed journals: 16

1. Authors: Felipe-Jiménez, I.; Fernández, A.; Andrada, M.; Arbelo, M.; Segura-Göthlin, S.; Colom-Rivero, A.; Sierra, E.

Title: Contribution to Herpesvirus Surveillance in Beaked Whales Stranded in the Canary Islands.

Journal: *Animals* 2021, 11, 1923. <https://doi.org/10.3390/ani11071923>

Citations: 2

IF: 2.752 (Q1)

2. Authors: Federica Giorda, Umberto Romani-Cremaschi, Antoinette E.

Marsh, Carla Grattarola, Barbara Iulini, Alessandra Pautasso, Katia Varello, Enrica Berio, Paola Gazzuola, Letizia Marsili, Cristina E. Di Francesco, Maria Goria, Federica Verna, Tania Audino, Simone Peletto, Maria Caramelli, Mercedes Fernández-Escobar, Eva Sierra, Antonio Fernández, Rafael Calero-Bernal, and Cristina Casalone

Title: Evidence for Unknown Sarcocystis-Like Infection in Stranded Striped Dolphins (*Stenella coeruleoalba*) from the Ligurian Sea, Italy

Journal: *Animals* 2021, 11, 1201. <https://doi.org/10.3390/ani11051201>

Citations: 0

IF: 2.752 (Q1)

3. Authors: Federica Giorda, Umberto Romani-Cremaschi, Antoinette E.

Marsh, Carla Grattarola, Barbara Iulini, Alessandra Pautasso, Katia Varello, Enrica Berio, Paola Gazzuola, Letizia Marsili, Cristina E. Di Francesco, Maria Goria, Federica Verna, Tania Audino, Simone Peletto, Maria Caramelli, Mercedes Fernández-Escobar, Eva Sierra, Antonio Fernández, Rafael Calero-Bernal, and Cristina Casalone

Title: Evidence for Unknown Sarcocystis-Like Infection in Stranded Striped Dolphins (*Stenella coeruleoalba*) from the Ligurian Sea, Italy

Journal: *Animals* 2021, 11, 1201. <https://doi.org/10.3390/ani11051201>

Citations: 0

IF: 2.752 (Q1)

4. Authors: Vargas-Castro, I.; Melero, M.; Crespo-Picazo, J.L.; Jiménez, M.d.l.Á.; Sierra, E.; Rubio-Guerri, C.; Arbelo, M.; Fernández, A.; García-Párraga, D.; Sánchez-Vizcaíno, J.M.

Title: Systematic Determination of Herpesvirus in Free-Ranging Cetaceans Stranded in the Western Mediterranean: Tissue Tropism and Associated Lesions.

Journal: *Viruses* 2021, 13, 2180. <https://doi.org/10.3390/v13112180>

Citations: 0

IF: 5,048 (Q2)

5. Authors: Montoto-Martínez T, De la Fuente J, Puig-Lozano R, Marques N, Arbelo M, Hernández-Brito JJ, Fernández A, Gelado-Caballero MD.

Title: Microplastics, bisphenols, phthalates and pesticides in odontocete species in the Macaronesian Region (Eastern North Atlantic)

Journal: *Marine pollution bulletin*, 173, 113105 (2021)

Citations: 0

IF: 5,553 (Q1)

6. Authors: Simone Segura-Göthlin, Antonio Fernández, Manuel Arbelo, Idaira

Felipe-Jiménez, Ana Colom-Rivero, Javier Almunia and Eva Sierra
Title: The Validation of a Non-Invasive Skin Sampling Device for
Detecting
Cetacean Poxvirus
Journal: *Animals* 11(10):2814 (2021)
Citations: 0
IF: 2.752 (Q1)

7. Authors: Suárez-Santana C. M., Fernández A., Caballero M. J.,
Rivero M. A., Arbelo M.
Title: "Notes" Morphology and Histology of the Mysticete's Prostate and
Its Implications in Male Fertility
Journal: *Aquatic Science and Technology* 10(1), 12-18.
<https://doi.org/10.52941/ast.v10i1.21> (2021)
Citations: 0
IF: H-index: 8

8. Authors: de Sales-Ribeiro C, Rivero MA, Fernández A, GarcíaÁlvarez
N, González J.F., Quesada-Canales O, Caballero, M.J.
Title: A Study on the Pathological Effects of Trypanorhyncha Cestodes
in Dusky Groupers *Epinephelus marginatus* from the Canary Islands.
Journal: *Animals* 2021 11, 1471. <https://doi.org/10.3390/ani11051471>
Citations: 0
IF: 1.967 (Q1)

9. Authors: Arregui M, Singleton EM, Saavedra P, Pabst DA, Moore MJ,
Sierra E, Rivero MA, Câmara N, Niemeyer M, Fahlman A, McLellan
WA, Bernaldo de Quirós Y
Title: Myoglobin Concentration and Oxygen Stores in Different
Functional Muscle Groups from Three Small Cetacean Species
Journal: *Animals* 11:451
Citations: 0
IF: 1.967 (Q1)

10. Authors: Velázquez-Wallraf A, Fernández A, Caballero MJ,
Møllerløgkken A, Jepson PD, Andrada M, Bernaldo de Quirós Y
Title: Decompressive Pathology in Cetaceans Based on an
Experimental Pathological Model.
Journal: *Frontiers in veterinary science* 8
Citations: 0
IF: 3.033 (Q1)

11. Authors: Andres Sanchez-Henao, Natalia García-Álvarez, Daniel
Padilla, María Ramos-Sosa, Freddy Silva Sergeant, Antonio Fernández,
Pablo Estévez, Ana Gago-Martínez, Jorge Diogène, Fernando Real
Title: Accumulation of C-CTX1 in Muscle Tissue of Goldfish (*Carassius
auratus*) by Dietary Experience
Journal: *Animals*. 2021; 11(1): 242.
<https://doi.org/10.3390/ani11010242>
Citations: 0
IF: 2.323 (Q1)

12. Authors: Cristina Otero-Sabio, Cinzia Centelleghé, Livio Corain, Jean-
Marie Graïc, Bruno Cozzi, Miguel Rivero, Francesco Consoli, Antonella
Peruffo.
Title: Microscopic anatomical, immunohistochemical, and
morphometric characterization of the terminal airways of the lung in
cetaceans.
Journal: *Journal of Morphology*. 2021; 282: 291- 308.
<https://doi.org/10.1002/jmor.21304>
Citations: 0
IF: 1.588 (Q1)

13. Authors: Federica Giorda, Giovanni Di Guardo, Katia Varello, Alessandra Pautasso, Eva Sierra, Maria Domenica Pintore, Carla Grattarola, Erika Molica Colella, Enrica Berio, Maria Goria, Elena Bozzettam Cristina Casalone and Barbara Iulini.
 Title: Retrospective immunohistochemical investigation on dolphin morbillivirus infection by comparing the performance of heterologous monoclonal and polyclonal antibodies – Short communication
 Journal: Acta Vet Hung. 2021 Jul 23;69(2):204-210.doi: 10.1556/004.2021.00028.
 Citations: 0
 IF: 0.995 (Q3)

14. Authors: Audino, T.; Grattarola, C.; Centelleghes, C.; Peletto, S.; Giorda, F.; Florio, C.L.; Caramelli, M.; Bozzetta, E.; Mazzariol, S.; Di Guardo, G.; et al.
 Title: SARS-CoV-2, a Threat to Marine Mammals? A Study from Italian Seawaters.
 Journal: Animals 2021, 11, 1663. <https://doi.org/10.3390/ani11061663>
 Authors: Corazzola, G.; Bains, M.; Grattarola, C.; Panti, C.; Marcer, F.; Garibaldi, F.; Berio, E.; Mancusi, C.; Galli, M.; Mazzariol, S.; et al. Title: Analysis of the Gastro-Intestinal Tract of Marine Mammals: A Multidisciplinary Approach with a New Multi-Sieves Tool.
 Journal: Animals 2021, 11, 1824.
<https://doi.org/10.3390/ani11061824>

15. Authors: Mazzariol S.; Centelleghes C.; Petrella A.; Marcer F.; Beverelli M.; Di Francesco G.; Di Renzo L.; Di Guardo G.; Audino T.; Tripodi L.; Casalone C.
 Title: Atypical Toxoplasmosis in a Mediterranean Monk Seal (*Monachus monachus*) Pup.
 Journal: Journal of Comparative Pathology, Volume 184, April 2021, Pages 65-71. <https://doi.org/10.1016/j.jcpa.2021.02.005>

16. Authors: Petrella A, Mazzariol S, Padalino I, Di Francesco G, Casalone C, Grattarola C, et al.
 Title: Cetacean Morbillivirus and *Toxoplasma gondii* Co-infection in Mediterranean Monk Seal Pup, Italy.
 Journal: Emerg Infect Dis. 2021;27(4):1237-1239.
<https://doi.org/10.3201/eid2704.20413>.

b) International conferences: 1

1. Authors: Umberto Romani Cremaschi, Giorda F, Marsh A, Grattarola C, Iulini B, Pautasso A, Varello K, Berio E, Gazzuola P, Marsili L, Di Francesco CE, Goria M, Verna F, Audino T, Peletto S, Caramelli M, Fernández-Escobar M, Sierra E, Fernández A, Calero Bernal R, Casalone C.
 Title: Infección por protozoos similares a *Sarcocystis* spp. en delfines listados (*Stenella coeruleoalba*) varados en las costas de Liguria, Italia. XX Congreso SEC. 4-7 Octubre 2021. Plataforma virtual

c) National conferences: 6

Cosa succede nei nostri mari e in area ACCOBAMS. Cristina Casalone. Conference “Monitoraggio degli spiaggiamenti e impatto delle plastiche su cetacei e ambiente marino”, Teams Platform , 12/10/2021

o Update sull’attività diagnostica degli IZZSS sui cetacei spiaggiati in Italia (2020-2021). Carla Grattarola. Conference “Monitoraggio degli spiaggiamenti e impatto delle plastiche su cetacei e ambiente marino”, Teams Platform , 12/10/2021

o Diffusione protocollo operativo per campionamento plastiche e risultati attività di ricerca sinergica in ambito di micro-meso e macroplastiche. Federica Giorda. Conference “Monitoraggio degli spiaggiamenti e

impatto delle plastiche su cetacei e ambiente marino”, Teams Platform , 12/10/ 2021

o Sistemi innovativi di monitoraggio passivo delle acque per la determinazione di contaminanti chimici e residui di farmaci. Nicola Pussini. Conference “Monitoraggio degli spiaggiamenti e impatto delle plastiche su cetacei e ambiente marino”, Teams Platform , 12/10/ 2021
o Inquinamento da microplastiche nelle acque dolci. Paolo Pastorino. Conference “Monitoraggio degli spiaggiamenti e impatto delle plastiche su cetacei e ambiente marino”, Teams Platform , 12/10/ 2021

o ESPERIENZE REGIONALI SUGLI EVENTI DI SPIAGGIAMENTO: DISCUSSIONE CASE REPORT IZS PLV. Carla Grattarola Session Case Reports: Conference “Monitoraggio degli spiaggiamenti e impatto delle plastiche su cetacei e ambiente marino”, Teams Platform , 12/10/ 2021

d) Other

(Provide website address or link to appropriate information): 0

None

9. Additional comments regarding your report:

None