



## Formato de Propuesta Técnica y Financiera<sup>1</sup>

Nombre de la Organización: Fundación Cethus	Tipo de Organización: No Gubernamental
<p>Descripción Breve de la Organización: Fundación Cethus fue fundada en 1992 por un grupo de investigadores y especialistas en diferentes disciplinas con el objeto de investigar, difundir y conservar ballenas y delfines en las aguas de Argentina. Actualmente contamos con proyectos en ejecución sobre Tonina overa, Franciscana, Delfín austral y Ballena franca austral. La Conservación es la misión y uno de los principales objetivos de Fundación Cethus, y todo nuestro trabajo se centra en mitigar las amenazas que enfrentan los cetáceos y sus hábitats.</p>	
Persona de Contacto: Mariana L. Melcón	Dirección: Junín 1111, Ciudad Autónoma de Buenos Aires(1113) - Argentina
Teléfono: +54- 11- 4790-0491	E-mail y Pagina Web: <a href="mailto:mariana.melcon@cethus.org">mariana.melcon@cethus.org</a> <a href="http://www.cethus.org/">http://www.cethus.org/</a>
<p>Título del Proyecto: Detección acústica y educación ambiental: Dos componentes esenciales para la conservación de la Franciscana (<i>Pontoporia blainvillei</i>)</p>	
<p>Objetivo del Proyecto y Resultados Esperados:</p> <p>Objetivo general Desarrollar desde la ciencia y la educación dos herramientas que nos permitan conservar a la Franciscana</p> <p>Objetivos específicos</p> <p>1.) Desarrollar una herramienta para detectar franciscanas en forma efectiva y no invasiva y que, una vez evaluada pueda ser aplicada por los distintos grupos de investigación de esta especie a lo largo de todo su rango de distribución. Esto permitirá tener una mejor estimación de tamaño poblacional y, de este modo, tomar las medidas necesarias para su conservación, no solo a nivel local sino también regional.</p> <p>2.) Como una herramienta de uso compartido, se planea aumentar el alcance de nuestro programa educativo de conservación de franciscanas, actualmente en curso en las ciudades de Viedma, Carmen de Patagones y Balneario El Cóndor.</p>	
Población Objetivo:	

<sup>1</sup> La propuesta puede ser presentada en Inglés o Español



Población residente de Franciscana, Estuario del Río Negro, Argentina	
Monto solicitado en USD: US\$ 18.612	Co-financiamiento: US\$ 19.00
Duración del Proyecto en Meses: 6 meses	País: Argentina

- 2. Resumen del proyecto:** Un resumen de la propuesta en inglés y español (300 palabras o menos en cada idioma) que debe incluir la ubicación geográfica, una breve descripción de la justificación, la(s) meta(s), objetivos, actividades específicas del proyecto, beneficiarios, y los resultados esperados.

*Our proposal consists of developin a new tool to effectively detect Franciscana dolphins in an automatic way using passive acoustic monitoring. This method constitutes a non-invasive technique that allows the detection of cetacean presence in an almost unambiguous manner and thus has the potential of being used to estimate population size by choosing the appropriate experimental design.*

*Most estimates of population size of Franciscana dolphins –which are considered a vulnerable species- rely on the number of stranded individuals or dolphins found in fishing nets. Even though there are some surveys in specific sites of the range of distribution of this species, the output of the proposed code combined with the already existing observations would enormously contribute relatively accurate estimate of the population size.*

*The aforementioned code consists of an algorithm that can detect automatically vocalizations proceeding from Franciscana dolphins by running it on sound files.*

*Finally, we want to extend the outreach of our already existing educational program for the Franciscana dolphin conservation to the coastal area of the province of Buenos Aires, Argentina. This program consists of an educational magazine and the corresponding training of teachers of different educational institutions.*

- 3. Experiencia de la Organización** (300 palabras o menos)

*Fundación Cethus has been conducting research and educational programs, and participated in forums and others initiatives for the past 20 year including WHMSI. Its mission consists on the conservation of cetaceans. In particular, this non-profit organization has worked on Franciscana dolphins for several years and recently has started using acoustics to study the species. The first scientific publication on echolocation behavior of franciscana dolphins in the wild (Melcón et al, 2012) has been published this year, leading Fundación Cethus to be the pioneer on the acoustics of franciscana dolphins in Argentina (more information can be found at <http://www.cethusnews.wordpress.org/educational-program-dolphins-of-rio-negro/>).*

*In terms of education, we have started a program for the conservation of franciscana dolphins which consists of the release of a magazine “Delfines del Río Negro” ([www.cethus.org/revista\\_delfines.html](http://www.cethus.org/revista_delfines.html)) and the training of teachers to instruct students at school. This educational program has been extremely successful reaching 3,000 students from July 2011 and June 2012. We plan on extending its range to the province of Buenos Aires, which is also inhabited by franciscana dolphins.*



- 4. Descripción narrativa del proyecto (máximo 10 páginas):** Esta sección debe incluir el contenido descrito a continuación y las siguientes preguntas deben ser abordadas: que se propone y cuál es su relevancia (objetivos y relevancia), cómo se llevará a cabo el trabajo (metodología), que se logrará, qué productos serán entregados, cómo se medirá el éxito del proyecto (metodología de seguimiento y evaluación). Todo ello debería hacerse en el siguiente formato:

- 4.1. Justificación:** Describa el valor del proyecto como contribución a la conservación de las diferentes categorías de especies migratorias marinas y hábitats que requieren mayor atención como se describe en la Sección I de la Convocatoria: ¿por qué es importante que este proyecto se ejecute? (por ejemplo, que necesidad comúnmente reconocida será atendida por la propuesta). Describa cualquier traslape o complementariedad con herramientas o proyectos existentes desarrollados por su organización o por otros. Describa cómo esta propuesta llenará las brechas existentes.

*The Franciscana dolphin is considered a vulnerable species by different organizations and initiatives (i.e. IWC, IUCN, CITES, CMS), due to a projected decline of more than 30% of the population over three generations. The rate of decline is thought to be an underestimate in addition to the fact that the causes of the decline have not ceased and are probably increasing (mainly because of fisheries expansion and lack of mitigation actions). Additionally, the species is currently divided into three genetically distinct populations, managed as four separate stocks of “Franciscana Management Areas”. In order to be able to know how acute is the problem, population sizes are needed. The biggest limitation for researchers consists of studying Franciscana dolphins in the wild due to the combination of several factors of the biology of this animals (they live in small groups, rarely show aerial displays, don’t possess conspicuous coloration and they are small) along with the fact that the areas inhabited by these dolphins often don’t count with enough resources to conduct research. The end result is a rough estimation of population size based almost exclusively on the number of individuals stranded or entangled. Even though it’s a valid effort, the method isn’t reliable enough to know how many animals are still alive and which management measures should be advised.*

*Thus, we are proposing to develop a new tool, available to any research group along the limited distribution of Franciscana dolphins interested in using it, to be able to measure population size in a more accurate way. These results will provide us with significant information to better assess population size of Franciscana dolphins throughout their entire distribution (that includes three national jurisdiction: Argentina, Brazil and Uruguay) and thus advise relevant local, national and regional authorities for the appropriate management measures.*

- 4.2. Línea base:** Describa la situación actual que el proyecto propone abordar como punto de referencia para medir el éxito al finalizar el proyecto. Proporcione brevemente información cuantitativa y/o cualitativa sobre las condiciones existentes que demuestran la necesidad de llevar a cabo el proyecto propuesto.

*Up to now there are no reliable population estimates of living Franciscana dolphins, except for Franciscana Management Area I (FMA I) where using a design-based aerial surveys the fully corrected abundance estimate was 1,998 (CV=0.48, 95% CI: 796-5,013). By correctly sampling sound within their distribution and running our automatic detector, we should be able to obtain crucial information to help to determine the real conservation status of this species and suggest the appropriate measures accordingly.*



*Following the successful campaign Fundacion Cethus/ WDCS have been developed during 2011/2012 through "Delfines del Río Negro" (Río Negro's dolphins) magazine for children range from 8 to 15 years old. This campaign reached 3,000 children from Viedma, Carmen de Patagones and Balneario El Condor in the first six months of 2012 whose now know the franciscana and their conservation problems. These educational program causes a positive impact on the local population who is now interested on the conservation of this project and they are requesting and supporting the creation of the Rio Negro Estuary Protected Area.*

**4.3. Objetivos y propósito del proyecto:** Los objetivos del proyecto deben estar claramente definidos y directamente relacionados con la(s) necesidad(es) identificada(s) anteriormente. El objetivo del proyecto debe ser cuantificable, realista (obtenible dentro del período de ejecución del proyecto), y estar directamente relacionado con el Área Prioritaria seleccionada (véase la sección I de la Convocatoria).

*We have two objectives:*

- 1) We want to develop a tool to assess Franciscana dolphins' population size*
- 2) We want to extend the range of our educational program to the province of Buenos Aires, Argentina and later on to explore how it could adapt to Brazil and Uruguay.*

**4.4. Resultados del Proyecto e Indicadores:** Describa los resultados cuantitativos y cualitativos que el proyecto espera generar. Explique cómo va a monitorear el progreso, así como los indicadores que se utilizarán para evaluar si los resultados que se esperan son alcanzados.

*In order to test the detector, after running some dry tests (with sound files) will be tested in Rio Negro Estuary, were we are going to correlate acoustic with visual presence. From past experiences we believe that acoustically we can detect animals with more reliability, but once the detector is working we can conduct systematic work to test our hypothesis.*

*In terms of the educational program, expanding the "Delfines de Rio Negro" magazine will allow us to reach 40 schools and 8,000 children at the end of this proposal. Courses for teachers and students of the Universidad of Río Negro will motivate those people to take active actions to protect Franciscana. Regarding the University it is expected few students will be incorporate in the research project. There is some interest in the local communities to begin to develop ecotouristic activities using as one of the targeted species the franciscana. It is planned to work on capacity building on this issue for local community with the idea to promote responsible whale watching following the high standard developed by Hoyt (2007). Land-based whale watching activity will begin to be implemented at the end of this project.*

**4.5. Actividades del Proyecto y Metodología:** Describa en detalle todas las actividades propuestas dentro del proyecto y describa las metodologías que se aplicarán para implementar el proyecto. La relación entre los objetivos y las actividades del proyecto debe ser clara en esta sección. Describa el enfoque innovador y la metodología técnica para llevar a cabo de las actividades y obtener el resultado esperado, y el grado de detalle de dichos resultados.

*To accomplish our first objective, our bioacoustician will write a script in Matlab that will enable users to detect Franciscana dolphins after conducting sound recordings. Additionally, she will develop an algorithm to estimate population size by using both acoustic and visual data.*



*The innovation for this part of our proposal consists on the reliability of almost exclusive acoustic data to carry out the surveys as well as the key factor that ALL researchers by ideally using the same tool, will be able to compare their data and hopefully gather knowledge on the population size of Franciscana dolphins throughout their distribution.*

*To accomplish our second objective it is expected to launch a massive communication campaign using printed material and media. All the information will be focus on the conservation of this species. Three kind of printed material will be used: i.) Educational poster in shopping, supermarkets, hotel, restaurants, bus stations of the main cities of the area (Viedma, Carmen de Patagones and El Condor), ii.) Leaflet for tourists. This area is visited by 50,000 tourists approximately each year and it was reported that an unknown number of tourists use gill net to fish in the Rio Negro estuary threatened the species Using different media tools (Fundacion Cethus website, and social networks; local, regional and national radio and TV broadcast, and newspapers) allow us to improve public awareness identifying threats for this species not only in the RNE but also in the entire distribution. iii.) Following the successful campaign Fundacion Cethus/ WDCS have been developed during 2011/2012 through "Delfines del Río Negro" (Río Negro's dolphins) magazine, it is planned to expand the "Delfines de Río Negro" magazine and print 2,000 new copies which sum up to the 3,000 extra copies already printed will allow us to cover in total 40 schools and approximately 8,000 children at the end of this proposal.*

*Courses for teachers (3 in total) and for environment related subject students of the University of Río Negro ( 2) will be given. These courses will help to improve the public awareness as well as identified potential key persons to incorporate to the project. A talk on Franciscana for the local people will be given with the idea to show the conservation problem of the species and how each participant could help to protect them.*

*There is some interest in the local communities to begin to develop ecotouristic activities using as one of the targeted species the franciscana. It is planned to work on capacity building on this issue for local community with the idea to promote responsible whale watching following the high standard developed by Hoyt (2007). Our objective is to promote exclusively land based whale watching activity avoiding any impact caused by vessels. In this regard some of the members of this proposal have almost 15 years of experience in this kind of workshops. A 4 days theoretical and practical workshop will be developed in the region. This workshop will provide information on general biology of the species, management advice on how to develop responsible whale watching, advice on what to do and not to do during whale watching activity, the need to regulate this activity since the beginning, etc. After the workshop Fundacion Cethus will help the local authorities and tour operators to implement the land-based whale watching program.*

**4.6. Marco Lógico:** Elabore un marco lógico para el proyecto utilizando el siguiente formato:

<b>Resumen Narrativo</b>	<b>Indicadores Verificables</b>	<b>Medios de Verificación</b>	<b>Supuestos</b>
<i>Fin Develop and evaluate two tools (from</i>	<i>Try to compile all data gathered from different research</i>	<i>Meeting of researchers on Franciscana dolphins</i>	





<p><i>research and education) that will allow us to conserve Franciscana dolphins</i></p>	<p><i>groups along the Franciscana dolphin's distribution measured in the same way.</i></p> <p><i>Reach at the end of the Project 8,000 children.</i></p>	<p><i>and/or survey</i></p> <p><i>Activities developed by children and participants of our workshops.</i></p>	
<p><b>Propósito</b> <i>We want to develop a tool to detect Franciscana dolphins (and estimate their population size) making it available at a regional level.</i></p> <p><i>Reduce the bycatch at Rio Negro Estuary (RNE) and creation of the Rio Negro Estuary Protected Area (RNEPA).</i></p>	<p><i>After developing the tool, make researchers aware of it and ask how many people are using it.</i></p> <p><i>Substantial reduction in the number of individuals bycatch in the RNE and the implementation of the RNEPA</i></p>	<p><i>Survey to all research groups working along the distribution of Franciscana dolphins</i></p> <p><i>Developed a public awareness campaign in the region.</i></p>	<p><i>For the educational program to closely work with educational provincial and local authorities.</i></p>
<p><b>Productos</b> <i>Development of an automatic detector of Franciscana dolphins</i></p> <p><i>Launch a massive communication campaign; Printed educational material (posters, leaflets and "Delfines del Río Negro" magazine; courses and whale watching workshop.</i></p>	<p><i>We will test our software comparing the results with visual data obtained in the field.</i></p> <p><i>Indicadores para medir los productos del proyecto en términos de cantidad, calidad, lugar y tiempo.</i> <i>All the educational products will allow us to reach the local and regional population.</i></p>	<p><i>New data from a field trip</i></p> <p><i>Changes in the population as a reflection of the Franciscana dolphin's conservation</i></p>	<p><i>Keep an open dialogue with local and regional authorities as well as researchers.</i></p>
<p><b>Actividades</b> <i>Write a piece of code that will allow us to detect vocalizations from Franciscana</i></p> <p><i>Develop and expand an educational program</i></p>	<p><i>\$7,550</i></p> <p><i>\$11,062.</i></p>	<p><i>The piece of code will be provided to WHMSI and all the research groups that request it.</i></p> <p><i>Copies of the printed materials will be provided to WHMSI, as well as a certificate for each school visited</i></p>	<p><i>None</i></p>



**4.7. Cronograma / Plan de Trabajo:** Desarrolle un plan de trabajo usando el siguiente formato. Indique cuando se llevarán a cabo las actividades, los logros y los resultados así como la persona responsable y el indicador. El plan de trabajo propuesto debe ser consistente con el enfoque técnico y la metodología, demostrando comprensión de los términos de referencia y la habilidad para traducirlos en un plan de trabajo factible. Una lista de los documentos finales, incluyendo informes, presentaciones, material de divulgación que se entregará como producto final, debe ser incluido aquí en la columna de "Producto".

Plan de Trabajo													Presupuesto					
Actividad	Producto	Meses												Responsable	Indicador	Fondos OEA	Co-Finan.	Total (US\$)
		1	2	3	4	5	6	7	8	9	10	11	12					
<b>1.1.</b>																		
1.1.1	Automatic detector	X	X	X	X									M.Melcón	Software	7,550	13,000	20,550
<b>1.2.</b>																		
1.2.1	Communication campaign	X	X	X	X	X	X							M. Failla	Communication campaign, printed materials; courses, workshop.	11,062	6,000	17,062
1.2.2	Printed materials	X	X	X	X	X	X											
1.2.3	Talks and courses	X	X	X	X	X	X											
1.2.4	WW workshop						X											
<b>Total:</b>																18612	19,000	37,612

**4.8. Monitoreo y Evaluación:** Describa la metodología a ser utilizada para monitorear el progreso y evaluar los logros del proyecto y el impacto.

*There will be two milestones to test the progress of the detector: 1) dry test: our bioacoustician will test the code on existing sound recordings. 2) wet test: the test will be performed with new data gathered in Rio Negro Estuary.*

*Additionally, we will correlate the results obtained by the detector with visual observations. This test will provide us with information on potential biases with either method.*

*We consider all the actions and activities developed as part of our educational program will contribute to involve local people on the conservation of the franciscana, reduce the bycatch and create the Rio Negro Estuary Protected Area.*

**4.9. Composición del Equipo y Asignación de Tareas:** Indique la estructura y la composición de su equipo. Liste el nombre del personal, la organización, el área de experiencia, posición asignada, y la tarea asignada.

*Dr. Mariana Melcón will be in charge of writing the script in Matlab and develop the algorithm to assess population size. Mariana has been working on bioacoustics for over eight years and has experience writing automatic detectors for different types of sounds.*

*Mauricio Failla will be responsible for the development and implementation of the educational program. He has been working on environmental education since 2002.*

*Rest of the team:*

*M.Sc. Miguel Iñíguez – Responsible for the WDCS/Fundación Cethus Franciscana project. Field work.*

*Lic. Cecilia Gasparrou - Responsible for education WDCS/ Fundación Cethus. Education assistant.*



*Lic. Vanesa Reyes Reyes- Fundación Cethus. Research on acoustic. Field work.*

**4.10. CV del Personal Propuesto:** Además de la información general sobre el individuo, sería útil conocer el trabajo realizado por el personal clave del equipo que mejor ilustra la capacidad de manejar las tareas asignadas.

## MARIANA L. MELCON

### EDUCATION

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1998	Introductory year, <b>Universidad de Buenos Aires</b> , Argentina
1999-2004	“Licenciate” in Biological Sciences (focus on Animal Physiology), <b>Universidad de Buenos Aires</b> , Argentina
2004-2007	PhD in Animal Physiology <b>Universität Tübingen</b> , Germany
2006	Course “Acoustic Communication”, <b>University of Southern Denmark</b> , Denmark
2008	Course “Neural Systems and Behavior”, <b>Marine Biological Laboratory</b> , Woods Hole, MA
2008	Course “Neurobiología de la memoria”, <b>Universidad de Buenos Aires</b> , Argentina
2008-2010	Postdoctoral fellow at the <b>Weizmann Institute of Science</b> , Israel
2010-2011	Postdoctoral fellow at <b>Scripps Institution of Oceanography</b> , University of California, San Diego
2012-2014	MBA at <b>Rady School of Management</b> , University of California, San Diego

### HONORS, FELLOWSHIPS AND OTHER FUNDING

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2005-2007	Scholarship of the <b>German Academic Exchange Service (DAAD)</b>
2007	PhD with honors ( <i>magna cum laude</i> ), <b>Universität Tübingen</b>
2007	<b>Rainer-und-Maria-Teufel Stiftung</b>
2007	Fund of the „Transnational Access implemented as Specific Support Action“ ( <b>Dryland Research SSA</b> ), Sede Boqer, Israel
2008	<b>MBL Award</b> , Woods Hole, MA
2008-2010	<b>Feinberg Graduate School</b> Fellowship
2011	Funding from the <b>Animal Welfare Institute</b> for the project: “Echolocation behavior of Commerson’s dolphins ( <i>Cephalorhynchus commersonii</i> ) and the impact of anthropogenic noise on this species in Bahía San Julián, Santa Cruz, Argentina”
2012	Funding from the U.S. Navy for the project at <b>BioWaves Inc.</b>
2012-2014	<b>Rady Postdoctoral</b> Fellowship

### ACADEMIC ACTIVITIES

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2007	Ad-hoc reviewer, Journal of Experimental Biology
2004-2008	Teaching assistant of the undergraduate course “Bioakustisches Großpraktikum”, Tübingen, Germany
2005-2006	Teaching assistant of the undergraduate course “Tierphysiologischer Kurs”, Universität Tübingen, Germany
2007	Teacher of the graduate course “The biology of desert-dwelling bats”, University of Ben Gurion, Sede Boqer, Israel





- 2009 Teaching one-day courses to high school students on neurobiology, Weizmann Institute of Science, Israel
- 2010 Correction of translations (English to Spanish) of press releases, Weizmann Institute of Science, Israel
- 2010 Lecturer of the course “Bioacústica en mamíferos (con orientación en cetáceos)”, organized by Fundación Cethus
- 2012 Guest Associate Editor, *Frontiers in Integrative Physiology*

## RESEARCH AND WORK EXPERIENCE

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- 1998-2002 Volunteer at the NGO **Fundación Cethus**, Argentina
- 2001 Internship at the **Bone Museum “Acatushun”**, Tierra del Fuego, Argentina
- 2003-2004 Master thesis on the cuticle physiology of blood-sucking bugs, **Universidad de Buenos Aires**, Argentina.  
Adviser: Dr. Gabriel Manrique
- 2004-2007 Dissertation on the echolocation behavior in bats, **Universität Tübingen**, Germany.  
Advisers: Prof. Dr. Hans-Ulrich Schnitzler and Dr. Annette Denzinger
- 2008 Field work in Bahía de Kino, Sonora, Mexico. Joint project between the **Universität Tübingen, Universität Ulm, and the Universidad Nacional Autónoma de México**. Research done on nectar-feeding bats trying to assess the cues they use to find flowers in the desert.
- 2008-2009 Postdoc on behavior and neurobiology in flying foxes, **Weizmann Institute of Science**, Israel. Project on the representation of 3D-space in free flying bats, tracking flight paths and conducting electrophysiological recordings extracellularly with a wireless system.  
Adviser: Dr. Nachum Ulanovsky
- 2009-2010 Edition of a brain atlas of the flying fox *Rousettus aegyptiacus*, in collaboration with Dr. Nachum Ulanovsky and Dr. Raya Eilam
- 2010-2011 Postdoc on underwater bioacoustics, doing passive acoustic monitoring, studying the impact of mid-frequency sonar on cetaceans and the echolocation behavior of beaked whales at **Scripps Institution of Oceanography**, University of California, San Diego.  
Advisers: Prof. Dr. John A. Hildebrand and Dr. Sean M. Wiggins
- 2010-2011 Collaboration with Dr. Nicholas Kellar (**Southwest Fisheries Science Center, NOAA Fisheries Service**) studying stress-related hormone levels in bottlenose dolphins after being exposed to sonar
- 2010-2011 Collaboration with **Smultea Environmental Sciences LLC**, to correlate aerial sightings of cetaceans with acoustic data in Southern California
- 2010-2012 Collaboration with **Fundación Cethus**, carrying out passive acoustic monitoring, and research on echolocation behavior of dolphins and impact of anthropogenic noise on cetaceans in Argentina.
- 2011 Collaboration with **BioWaves Inc.**, debugging custom-written software, conducting some signal processing and analyzing acoustic data proceeding from minke whales
- 2012 Subcontractor at **BioWaves Inc.**, creating an automatic mid-frequency active sonar detector, which can also determine vocal impact of sonar on marine mammals



## PUBLICATIONS

### ARTICLES

- 1) **Melcón, M.L.**; Lazzari, C.R.; Manrique, G. (2005). Repeated plasticization and recovery of cuticular stiffness in the blood-sucking bug *Triatoma infestans* in the feeding context. *Journal of Insect Physiology* 51, 989-993.
- 2) **Melcón, M.L.**; Denzinger, A.; Schnitzler, H.-U. (2007). Aerial hawking and landing: Approach behavior in Natterer's bats, *Myotis nattereri* (Kuhl 1818). *Journal of Experimental Biology* 210, 4457-4464.
- 3) **Melcón, M.L.**; Schnitzler, H.-U.; Denzinger, A. (2009). Variability of Approach and Echolocation Behaviour in Landing Greater Mouse-eared Bats, *Myotis myotis* (Borkhausen, 1797). *Journal of Comparative Physiology A* 195, 69-77.
- 4) Yovel, Y; **Melcón, M.L. (equal contribution)**; Franz, M.O.; Denzinger, A.; Schnitzler, H.-U. (2009). The voice of bats: How Greater Mouse-eared Bats recognize individuals based on their echolocation calls. *PLoS Computational Biology* 5(6), e1000400.
- 5) Sánchez, F.; **Melcón, M.L.**; Korine, C.; Pinshow, B. (2010). Ethanol ingestion affects flight and echolocation performance in Egyptian fruit bats. *Behavioral Processes* 84(2), 555-558.
- 6) **Melcón, M.L.**; Cummins, A.J.; Wiggins, S.M.; Hildebrand, J.A. Assessing the effects of mid-frequency sonar on cetaceans in Southern California. (2010). *CAA-ACA Proceedings*.
- 7) **Melcón, M.L.**; Yovel, Y. (equal contribution); Denzinger, A.; Schnitzler, H.-U. (2011). How greater mouse-eared bats deal with ambiguous echoic scenes. *Journal of Comparative Physiology A* 197(5), 505-514.
- 8) Belgrano, J.; Kröhling, F.; Arcucci, D.; **Melcón, M.**; Iñíguez, M. (2011). Aerial sightings of Southern right whales in Gulf of San Jorge, Argentina. *J. Cetacean Res. Manage. SC/63/BRG11*.
- 9) Koblitz, J.C.; Stilz, P.; Pflästerer, W.; **Melcón, M.L.**; Schnitzler, H.-U. (2011). Source level reduction and source beam aiming in landing big brown bats (*Eptesicus fuscus*). *Journal of the Acoustical Society of America* 130(5), 3090-3099.
- 10) Franz, M., Yovel, Y., **Melcón, M.L.**, Stilz, P., Schnitzler, H.-U. (2011). Systematische Merkmalsbewertung in komplexen Ultraschallsignalen mit Lernmaschinen. *Informatik-Spektrum*, 1-6.
- 11) **Melcón, M.L.**; Cummins, A.J.; Kerosky, S.M.; Roche, L.K.; Wiggins, S.M.; Hildebrand, J.A. Blue whales respond to anthropogenic noise. *PLoS ONE*, DOI: 10.1371/journal.pone.0032681
- 12) Simonis, A.E.; Baumann-Pickering, S.; Oleson, E.; **Melcón, M.L.**; Gassmann, M.; Wiggins, S.M.; Hildebrand, J.A. High-frequency modulated signals of killer whales (*Orcinus orca*) in the North Pacific Ocean. *Journal of the Acoustical Society of America* 131(4), EL295-EL301.
- 13) **Melcón, M.L.**; Failla, M.; Iñíguez, M.A. Echolocation signals of freely swimming Franciscana dolphins (*Pontoporia blainvillei*). *Journal of the Acoustical Society of America* 131(6), EL448-EL453.
- 14) **Melcón, M.L.**; Wiggins, S.M.; Hildebrand, J.A. Jamming avoidance response in Cuvier's beaked whales? IN PREP (*Frontiers in Integrative Physiology*).



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- 16) Cummins, A.J.; Oleson, E.; Calambokidis, J.; **Melcón, M.L.**; Schorr, G.S.; Falcone; E.A.; Wiggins, S.M.; Hildebrand, J.A. Passive acoustic and visual monitoring of humpback whales (*Megaptera novaeangliae*) in the Olympic Coast National Marine Sanctuary: Importance of quantifying call type. IN PREP.

## MAURICIO FAILLA

### EDUCATION

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2001 Biologist. Universidad Nacional de Córdoba. Argentina.

### WORK EXPERIENCE

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2002 - present. Coordinator of the Delfines del Río Negro Project. Partially Supported by Fundación Cethus (Argentina), CEAMSE (Argentina) and WDCS (UK). [www.cethus.org](http://www.cethus.org)

2005 - present. Researcher of the Borrowing Parrot Project. Patagonian Bird Conservation Program. Supported by Max Plank Institute (Alemania), WCS (USA) and BirdLife (International). <http://orn.mpg.de/masello/> - [www.patagonianoreste.com.ar](http://www.patagonianoreste.com.ar)

2003-2009. Director of the Río Negro Wildlife Service. Patagonia. Argentina.

2005-2009. Honorary Vicepresident of the Fauna Federal Council of Argentina (ECIF).

2011 - present. Member of the Argentinean Council of the Western Hemisphere Shorebird Reserve Network. [www.whsrn.org](http://www.whsrn.org)

2011 - present. Member of the Argentinean Bats Conservation Plan. <http://www.pcma.com.ar/mauriciofaila.html>

2005 - 2009. Member of the Argentinean Council of the Argentinean Lama (Lama guanicoe) Management Plan. <http://www.ambiente.gov.ar>

2002. Researcher of the Fisheries Ecology Laboratory. Instituto de Biología Marina y Pesquera Almirante Storni. Universidad del Comahue. Patagonia. Argentina.

2012 - Profesor of Natural Resources. Instituto Terciario del Sur.

2011 - Present. Editor of the Educational programme for Franciscana dolphins Delfines del Río Negro Educational Booklet. Patagonia. Argentina. Destinado a escuelas de Patagonia Noreste. Supported by Fundación Cethus (Argentina) and WDCS (UK). [www.cethus.org](http://www.cethus.org)

2010 - present. Editor of the ProMonte Educational Booklet. Patagonia. Argentina. Supported by WCS (UK). [www.patagonianoreste.com.ar](http://www.patagonianoreste.com.ar)

## PUBLICATIONS

### ARTICLES

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- **Failla M**, Seijas VA, Esposito R y Iñíguez MI. 2012. Franciscana Dolphins, *Pontoporia blainvillei*, of the Río Negro Estuary, Patagonia, Argentina. *Marine Biodiversity Records*, 5, e102 <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8714072>
- **Melcón ML**, **Failla M** y Iñíguez MA. 2012. Echolocation behavior of Franciscana dolphins (*Pontoporia blainvillei*) in the wild. *Journal of the Acoustical Society of*



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- **Failla M**, Seijas VA y Vermeulen E. (In press). Occurrence of bottlenose dolphins (*Tursiops truncatus*) in the Río Negro estuary, Argentina, and their mid-distance movements along the Northeast Patagonian coast. Latin American Journal of Aquatic Mammals.
- Hevia M, Arcucci D, Belgrano J, Cipriano F, **Failla M**, Gasparrou C, Hodgins N, Kröhling F, Reyes Reyes V, Tossenberger VP y Iñíguez MA. 2011. Strandings of six beaked whales in Santa Cruz province, southern Argentina (1998-2011). Report of International Whaling Commission. SC/63/SM3.
- **Failla M**, Vermeulen E, Carbajal M, Arruda J, Godoy H, Lapa A, Mora G, Urrutia C, Balbiano A y Cammareri A. 2008. Historical records of southern right whales (*Eubalaena australis*) of the province Rio Negro, Northeast Patagonia, Argentina (1991-2008). Report of International Whaling Commission. SC/60/BRG1.
- Vermeulen E, Cammareri A y **Failla M**. 2008. A photo-identification catalogue of bottlenose dolphins (*Tursiops truncatus*) in North Patagonia, Argentina: A tool for the conservation of the species. Report of International Whaling Commission. CS/60/SM1.
- Belgrano J, Masello JF, Gribaudo C, Arcucci D, Krohling F, **Failla M** y Iñíguez MA. 2007. Sightings of sei whales (*Balaenoptera borealis*) on the South Western Atlantic. Report of International Whaling Commission. SC/59/SH13.
- **Failla M**, Iñíguez M. A, Fernández Jurisic E y Tossenberger V. 2004. Effect of vessel traffic on Commerson's dolphin (*Cephalorhynchus commersonii*) in Bahía San Julián, Patagonia, Argentina. Report of International Whaling Commission. SC/56/WW7.
- **Failla M**, Iñíguez MA, Tossenberger VP y de Haro C. 2004. Bioecology of Franciscana (*Pontoporia blainvillei*) in northern Patagonia, Argentina. Report of International Whaling Commission. SC/56/SM24.
- Llanos FA, **Failla M**, García GJ, Giovine PM, Carbajal M, González PM, Paz Barreto D, Quillfeldt P y Masello JF. 2011. Birds (Aves) from the endangered Monte, the Steppes and Coastal biomes from the Province of Río Negro, Northern Patagonia, Argentina. Check List 7 (6): 782-797. <http://www.checklist.org.br/archive?vol=7&num=6>
- Masello JF, Quillfeldt P, Munimanda GK, Klauke N, Segelbacher G, Schaefer HM, **Failla M**, Cortés M y Moodley Y. 2011. The high Andes, gene flow and a stable hybrid zone shape the genetic structure of a wide-ranging South American parrot. Frontiers in Zoology 8:16. <http://www.frontiersinzoology.com/content/8/1/16/abstract>
- **Failla M**, Seijas VA, Quillfeldt P y Masello JF. 2009. Potencial impacto del loro barranquero (*Cyanoliseus patagonus*): evaluación de percepción de daño en Patagonia Nordeste, Argentina. Revista Gestión Ambiental. Chile.
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- Ricardo B, Novaro A, Funes M, Walter S, Ferrando P, **Failla M** y Carmanchahi P. 2010. Guanaco Management in Patagonian Rangelands: A Conservation Opportunity on the Brink of Collapse. In Wild Rangelands: Conserving Wildlife While Maintaining Livestock in Semi-Arid Ecosystems, 1st edition. Edited by du Toit JT, Kock R, y Deutsch JC. Blackwell Publishing.
- Barquez RM, Carbajal MN, **Failla M** y Díaz MM. 2012. New distributional records for bats of Argentine Patagonia and the southernmost known record for a molossid bat in the world. Mammalia. <http://www.degruyter.com/view/j/mamm.ahead-of-print/mammalia-2012-0053/mammalia-2012-0053.xml>



- Petracci PF, Ibáñez H, Baigún R, Hollmann F, Mac-Lean D, **Failla M**, Cereghetti J, Bustamante J, Giovine P y Díaz L. 2010. Monitoreo poblacional 2009 de cauquenes migratorios (*Chloephaga spp.*). Plan Nacional de Conservación y Manejo de Cauquenes. Secretaría de Ambiente y Desarrollo Sustentable de la Nación. Argentina.
- Masello JF, **Failla M**, Giovine P y P Quillfeldt. 2007. Reserve status: parrot colony aims for legal protection. PsittaScene 19, N° 4. UK.
- Balde R, de Lamo D, Ferrando P y **Failla M**. 2006. Plan Nacional de Manejo del Guanaco (*Lama guanicoe*). Secretaría de Ambiente y Desarrollo Sustentable de la Nación. Argentina.

**5. Presupuesto (2 páginas):** Deberá presentarse un presupuesto detallado en dólares Americanos que muestre cómo los recursos financieros proporcionados por WHMSI serán utilizados, y si es el caso, cómo este aporte complementa la cofinanciación ofrecida por su institución o centro(s) asociado(s). Indique claramente los rubros para los cuales los fondos serían utilizados. La información sobre salarios puede incluir el nombre del personal, la posición y el salario. Los gastos de viaje deben incluir el número de vuelos, viáticos, transporte local, gastos varios. Cualquier otro gasto debe incluir descripción, cantidad, precio unitario y total.

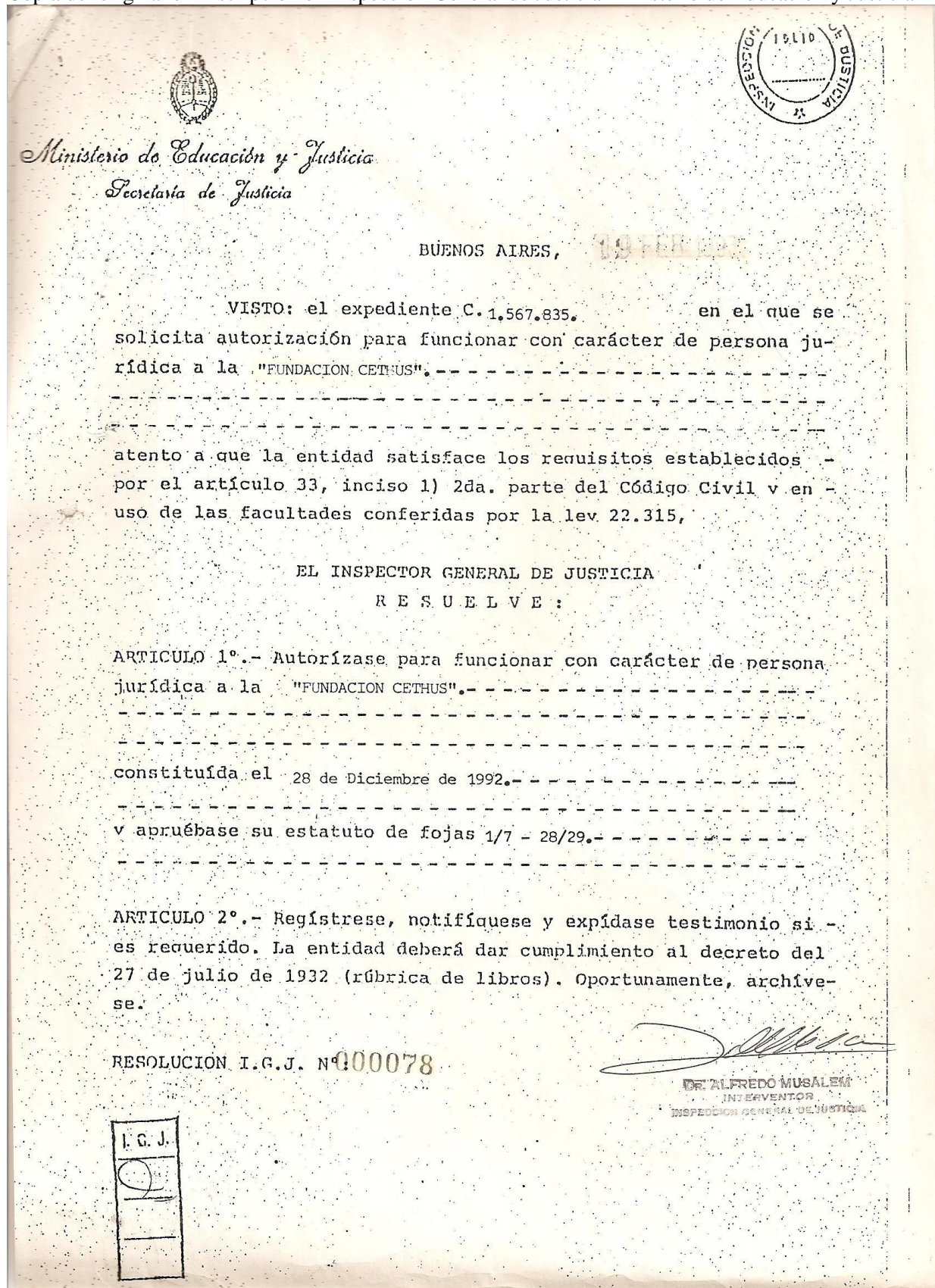
WHMSI	Project	Earned by	Price per unit	Units	Total price
Salary (1 person) 20h/week	Automatic detector	M. Melcón	2,800/month	1.5 months	\$ 4,200
Salary (1 person) 20h/week	Population size estimator	M. Melcón	2,800/month	1 month	\$ 2,800
<i>Subtotal research WHMSI</i>					\$ 7,000
Education					
Educational poster (A4, 200g., full color)	Educational	N/A	\$0.5/ each	1,000	\$ 500
Educational leaflet (A5, 200g, full color)	Educational	N/A	\$0.12/each	10,000	\$ 1,200
Printed material design	Educational	Designer		for all material	\$ 500
Salary (1 person) 20hs/week	Educational	M. Failla	1,000/month	8 months	\$ 8,000
Hotel accomodation and meals for 1 expert on whale watching	WW workshop	M. Iñiguez	\$63/day	4 days	\$ 252
Transportation Buenos Aires - Viedma (2 trips anual)	Educational and Fieldwork	2 members	\$305/trip	2 trips	\$ 610
<i>Subtotal educational program WHMSI</i>					\$ 11,062
Administrative costs	Acoustic and Educational	N/A	N/A	N/A	\$ 550
<b>TOTAL AMOUNT REQUEST WHMSI</b>					<b>\$ 18,612</b>
<b>Fundación Cethus</b>					
Project	Earned by	Price per unit	Units	Total price	
Recording device	Validation of detector	N/A	\$10,000	1	10,000
Office facility	Acoustic and Education	N/A	\$ 3,000	1	3,000
<b>Whale and Dolphin Conservation</b>					
Project	Earned by	Price per unit	Units	Total price	
Fieldwork on Franciscana	Franciscana	N/A	N/A	1	6,000





**Anexo 1: Documento que demuestra la existencia legal de su organización**

Copia del original en Inscripción en Inspección General de Justicia Ministerio de Educación y Justicia

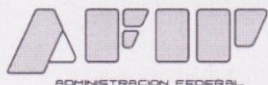




### Constancia de Inscripción en AFIP (Administración Federal de Ingresos Públicos)

24/10/12 AFIP - Administración Federal de Ingresos Públicos

Volver Imprimir pantalla



ADMINISTRACION FEDERAL DE INGRESOS PUBLICOS  
**CONSTANCIA DE INSCRIPCION**

CUIT: 30-66174923-3  
**FUNDACION CETHUS**  
Fecha Contrato Social: 28-12-1992

**IMPUESTO/REGIMEN REGISTRADO Y FECHA DE ALTA**

IVA EXENTO 08-2009  
.....  
Contribuyente no amparado en los beneficios promocionales INDUSTRIALES establecidos por Ley 22021 y sus modificatorias 22702 y 22973, a la fecha de emisión de la presente constancia.

**Esta constancia no da cuenta de la inscripción en el Impuesto sobre los Bienes Personales ni del Impuesto Exteriorización - Ley 26476, la cual de corresponder deberá solicitarse en la Dependencia donde se encuentra inscripto.**

Actividad principal: 911200 (F-150) Fecha de inicio: 08/2003  
Actividad secundaria(s):  
Mes de cierre ejercicio comercial: 7

**Domicilio Fiscal**

JUNIN 1111 P5 I  
1113-CIUDAD AUTONOMA BUENOS AIRES

**Dependencia donde se encuentra inscripto**

AGENCIA NRO 11  
CARLOS PELLEGRINI N° 685 1° PISO  
1009 CIUDAD AUTONOMA BUENOS AIRES

Vigencia de la presente constancia: 24-10-2012 a 22-04-2013 Hora 10:02:19 Verificador 101685971396

Los datos contenidos en la presente constancia deberán ser validados por el receptor de la misma, en la página institucional de esta Administración Federal (<http://www.afip.gov.ar>)

<https://seti.afip.gov.ar/padron-puc-constancia-internet/ConsultaConstanciaAction.do> 1/1