

Lorenzo Alvarez Filip

PhD Environmental sciences (2010)
MSc Marine ecology and fisheries (2004)
BSc (Hons) Biology (2002)
CMAS Dive instructor (2006)

School of Environmental Sciences
University of East Anglia
Norwich, UK. NR4 7TJ
l.alvarez@uea.ac.uk
lorenzoalvarezf@yahoo.com
www.uea.ac.uk/~mhe06gau

PROFILE

I am an ambitious and driven professional with expert knowledge of tropical marine environments, ecological analyses and have strong diving skills. I am self-starter, can work efficiently on own initiative or can integrate easily into a team environment. I have focused my research in the understanding of large-scale patterns of change in marine ecosystems by using large datasets, and in the description of some ecological processes with experimental/field observations. However, I believe that today's greatest challenge is the conservation of biodiversity/ecosystems in a framework of human well-being. Thus, I am becoming more interested in the societal responses to ecosystem degradation and biodiversity loss. My aim for future research is therefore to integrate ecological knowledge and social issues in my forthcoming research.

CAREER HISTORY

Postdoctoral Fellow Oct 2010 to present
Simon Fraser University
Department of Biology

Long-term ecological changes on Caribbean reefs. In this project I am working with Professor Isabelle Côté in integrating historical estimates on coral cover, rugosity, algae and fish abundance to attaining a better understanding of the large-scale impacts and consequences of reef degradation for reef-associated fishes. This will allow more direct exploration of the consequences and timing (e.g. lag effects) of habitat degradation for a range of diversity and trophic dimensions of fish assemblages, and would also allow tests of well-established paradigms such as the role of the loss of herbivory in increasing the dominance of macroalgae and subsequent phase shifts on the Caribbean.

Chief of research and monitoring Jan 2005 to Sep 2006
Cozumel Reefs National Park
Mexican Commission of Natural Protected Areas

CONANP is a governmental institution that administrates the federal Protected Areas of Mexico. Its mission is to conserve the natural heritage of Mexico through Protected Areas and other forms of preservation, by promoting a culture of conservation and the sustainable development of communities living in their own environment. My duties included facilitating the identification and implementation of activities to protect and restore Cozumel's reefs. Conduct outreach and education with local communities. And evaluate and coordinate with local and federal partners (e.g. scientist, NGOs) research activities in the Marine Reserve.

EDUCATION

Doctor of Philosophy Sep 2006 to Sep 2010
Environmental Sciences
University of East Anglia (UEA)
Awaiting Graduation
Thesis: Habitat complexity in coral reefs: patterns of degradation and consequences for biodiversity

Master of Science Sep 2002 to Dec 2004
Major: Marine Ecology
Minor: Fisheries
Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE)
Thesis: Influence of substrata over structure of fish communities in Cabo Pulmo coral reef ([pdf](#))

Bachelor of Science (Hons) Sep 1996 to Jun 2002
Biology
Universidad Nacional Autónoma de México (UNAM)
Thesis: Population density and feeding of the moray eel's *Gymnothorax moringa* and *Gymnothorax vicinus* (Pisces: Muraenidae) in reef lagoon of Puerto Morelos, Mexico ([pdf](#))

DIVING SKILLS

Dive instructor Sep 2006
World Confederation of Underwater Activities (CMAS)

Cave diver Jul 2006
Technical Diving International (TDI)
World Confederation of Underwater Activities (CMAS)

Trimix diver Jan 2006
Technical Diving International (TDI)

- Eakin C.M., Morgan J.A., Heron S.F., Smith T.B., Liu G., **Alvarez-Filip L.**, et al. *in press*. Caribbean corals in crisis: record thermal stress, bleaching, and mortality in 2005. *PLoS ONE*
- Reyes-Bonilla H., **Alvarez-Filip L.** and Sánchez-Alcántara I. *in press*. New records of the Townsend angelfish (*Holacanthus bermudensis* X *H. ciliaris* hybrid) and range extension of the Blue angelfish (*H. bermudensis*) in the Caribbean Sea. *Caribb. J. Sci.*
- Lozano-Álvarez E., Briones-Fourzán P., **Alvarez-Filip L.**, Weiss H.M., Negrete-Soto F. and Barradas-Ortiz C. 2010. Influence of shelter availability on interactions between Caribbean spiny lobsters and moray eels: implications for artificial lobster enhancement. *Mar. Ecol. Prog. Ser.* 400: 175-185 ([pdf](#))
- Alvarez-Filip L.**, Dulvy N.K., Gill J.A., Côté I.M. and Watkinson A.R. 2009 Flattening of Caribbean coral reefs: region-wide declines in architectural complexity. *Proc. R. Soc. B.* 276: 3019-3025 ([pdf](#))
- Alvarez-Filip L.**, Millet-Encalada M. and Reyes-Bonilla H. 2009. Impact of Hurricanes Emily and Wilma on the coral community of Cozumel Island, Mexico. *Bull. Mar. Sci.* 84: 295-306 ([pdf](#))
- Alvarez-Filip L.** and Gil I. 2006. Effects of Hurricanes Emily and Wilma on Coral Reefs in Cozumel, Mexico. *Coral Reefs.* 25: 583 ([pdf](#))
- Alvarez-Filip L.**, Reyes-Bonilla H. and Calderón-Aguilera L. 2006. Community structure of fishes in Cabo Pulmo Reef, Gulf of California. *Mar. Ecol.* 27: 253-262 ([pdf](#))

Symposia proceedings

- Reyes-Bonilla H. and **Alvarez-Filip L.** 2009. Long-term changes in taxonomic distinctness and trophic structure of reef fishes at Cabo Pulmo reef, Gulf of California. *Proceedings of 11th International Coral Reef Symposium*. Fort Lauderdale, USA. 790-794 ([pdf](#))
- Álvarez del Castillo-Cárdenas P.A., Reyes-Bonilla H., **Alvarez-Filip L.**, Millet-Encalada M. and Escobosa-González L.E. 2009. Cozumel Island, México: A disturbance history. *Proceedings of 11th International Coral Reef Symposium*. Fort Lauderdale, USA. 701-705 ([pdf](#))
- Alvarez-Filip L.** and H. Reyes-Bonilla. 2006. Comparison of community structure and functional diversity of fishes at Cabo Pulmo coral reef, B.C.S. Mexico between 1987 and 2003. *Proceedings of 10th International Coral Reef Symposium*. Okinawa, Japan. 216-225 ([pdf](#))

Book chapters

- Alvarez-Filip L.** 2008. Efecto de los Huracanes Emily y Wilma sobre arrecifes en el Parque Nacional Arrecifes de Cozumel. In: Biodiversidad acuática de la Isla de Cozumel (ed. Mejía-Ortiz L.M.) UQROO, Mexico City, 361-372 ([pdf](#))
- Millet-Encalada M. and **Alvarez-Filip L.** 2008. Peces arrecifales. In: Biodiversidad acuática de la Isla de Cozumel (ed. Mejía-Ortiz L.M.) UQROO, Mexico City, 239-256 ([pdf](#))
- Millet-Encalada M., **Alvarez-Filip L.** and Reyes-Bonilla H. 2008. Estructura comunitaria de corales escleratinios en el Parque Nacional Arrecifes de Cozumel. In: Biodiversidad acuática de la Isla de Cozumel (ed. Mejía-Ortiz L.M.) UQROO, Mexico City, 309-326 ([pdf](#))

Outreach

- Alvarez-Filip L.** and Bonilla-Moheno M. 2007. Arrecifes coralinos, selvas tropicales y huracanes. *Ciencias.* 85: 14-17 ([pdf](#))
- Alvarez-Filip L.** 2007. Arrecifes de coral y áreas naturales protegidas. *Ciencia y Desarrollo.* 33: 9-13 ([pdf](#))

Technical documents

- Millet-Encalada M. and **Alvarez-Filip L.** 2007. Reporte del programa de monitoreo de arrecifes de Cozumel para la temporada 2006. Parque Nacional Arrecifes de Cozumel (CONANP) 30 pp. ([pdf](#))
- Alvarez-Filip L.**, and Nava-Martínez G. 2006. Efecto de los Huracanes Emily y Wilma sobre los arrecifes de la costa Oeste del Parque Nacional Arrecifes de Cozumel. Parque Nacional Arrecifes de Cozumel (CONANP) 14 pp. ([pdf](#))
- Nava-Martínez G., **Alvarez-Filip L.** and Hernández-Landa R. 2006. Reporte del programa de monitoreo del Parque Nacional Arrecifes de Cozumel, 2004-2005. Parque Nacional Arrecifes de Cozumel (CONANP) 24 pp.

- Flores-Morales S., Montalvo M.D. and **Alvarez-Filip L.** 2006. Guía de Corales de Cozumel. Parque Nacional Arrecifes de Cozumel (CONANP) 76 pp.
- González-Leal B.P. and **Alvarez-Filip L.** 2006. Guía de peces de Cozumel. Parque Nacional Arrecifes de Cozumel (CONANP) 94 pp.

**CONGRESS &
WORKSHOPS**

- International Workshop on Restoration of *Macrocystis pyrifera* (giant kelp) forests: Considerations, Impacts and Users of Marine Algal Ecosystems. 2004. CICESE, Ensenada, B.C. Mexico.
- Alvarez-Filip, L.** & Reyes-Bonilla, H. Comparison of community structure and functional diversity of fishes at Cabo Pulmo coral reef, B.C.S. Mexico between 1987 and 2003. In "10th International Coral Reef Symposium" Okinawa, Japan, 2004
- Alvarez-Filip, L.** & Reyes-Bonilla, H. Community structure of fishes in Cabo Pulmo Coral Reef, B.C.S. Mexico. In: IV International Symposium of the Sea of Cortes, Mazatlan, Mexico. October, 2005
- Fernandez-Rivera Melo, F., H. Reyes-Bonilla & **L. Alvarez-Filip.** Community structure of reef fishes in the Western coast of Gulf of California, Mexico. In: IV International Symposium of the Sea of Cortes, Mazatlan, Mexico. October, 2005
- Alvarez-Filip, L.** & Reyes-Bonilla. Functional diversity of reef fishes throughout Gulf of California. In: First DIVERSITAS Open Science Conference, Oaxaca, Mexico, November 2005
- Reyes-Bonilla H., **L. Alvarez-Filip L.**, et al. Macroecology and functional ecology of reef species of the Gulf of California. In: Workshop of the reef ecosystems in Norwest of Mexico, La Paz, Mexico. January 2006
- Alvarez-Filip, L.** & Reyes-Bonilla, H. Influence of Substrata on the reef fish assemblage at the Cabo Pulmo Coral Reef, B.C.S. Mexico. In: 3th Mexican Congress of Coral Reefs, Cancun, Mexico, March, 2006
- Alvarez-Filip, L.** & Nava-Martinez, G. Effect of the Hurricane Emily over the reefs in the National Park of Cozumel Reefs. In: 3th Mexican Congress of Coral Reefs, Cancun, Mexico, March, 2006
- Herrero-Perezrul, D., **L. Alvarez-Filip**, et al. Ecological patterns of Sea Urchins and Sea Stars in the Mexican Pacific. In: 3th Mexican Congress of Coral Reefs, Cancun, Mexico, March, 2006
- 3rd Recruitment Monitoring Workshop, Using Dynamics of Reef Populations in Managing Coral Reef Systems. Chaired by Peter. F. Sale, Bob Steneck and Mark Buttler. Akumal Q, Roo, Abril 2006
- Millet-Encalada, M., H. Reyes-Bonilla & **L. Alvarez-Filip.** Effect of the Hurricanes Emily and Wilma on the coral community in the Cozumel Island Reefs, México. In: 1st Caribbean Congress. Cozumel, June 2006.
- Conservation and Sustainable Use of Coral Reefs and Associated Habitats in the Mayan Riviera, México. NOAA. Cancun, Mexico, June 2006
- Detection of training requirements for natural protected areas personnel. PRONATURA. Mérida, México, September 2006
- González-Baca, C., **L. Alvarez-Filip**, et al. Effects of hurricanes on sea turtle nests on Cozumel Island, Mexican Caribbean: beach variability. 27th Sea Turtle Symposium, South Carolina, USA, February 2007
- Alvarez-Filip, L.** Consequences of hurricane impact: the example of Cozumel Reefs, Mexico. Student Conference on Conservation Science. Cambridge, UK, March 2007. (Awarded as the 3rd best poster)
- Alvarez-Filip, L.** Hurricane impacts on coral reef ecology and tourist economies. Ecological restoration in a changing world ESA/SER. San Jose California, USA. Agosto de 2007
- Alvarez-Filip, L.** & H. Reyes-Bonilla. Long term changes (1983-2006) on the community and trophic structure of the reef fish assemblages at Cabo Pulmo, Gulf of California. IV Mexican Congress of Coral Reefs. La Paz, Mexico. October 2007
- Alvarez del Castillo Cárdenas, A., H. Reyes Bonilla & **L. Alvarez-Filip.** Effect of the Hurricanes Emily and Wilma on the landscape and benthic communities in the Parque Nacional Arrecifes de Cozumel. IV Mexican Congress of Coral Reefs. La Paz, Mexico. October 2007
- Millet, M., **L. Alvarez-Filip** & H. Reyes-Bonilla. Coral bleaching in the reefs of Cozumel island, Mexico. IV Mexican Congress of Coral Reefs. La Paz, Mexico. October 2007
- Millet, M., **L. Alvarez-Filip** & H. Reyes-Bonilla. Effect of the Hurricanes Emily and Wilma on the coral community in the Cozumel reefs, Mexico. IV Mexican Congress of Coral Reefs. La Paz. October 2007
- Alvarez-Filip, L.**, J. Gill, N. Dulvy & A. Watkinson. Recent regional declines in reef relief within the Caribbean. 11th International Coral Reef Symposium. Fort Lauderdale, United States. July 2008

- Reyes-Bonilla H. & **L. Alvarez-Filip**. Long-term changes in taxonomic distinctness and trophic structure of the reef fishes at Cabo Pulmo reef, Gulf of California. 11th International Coral Reef Symposium. Fort Lauderdale, United States. July 2008
- Millet-Encalada, M., **L. Alvarez-Filip**, R. Hernandez-Landa & H. Reyes-Bonilla. Damage and short-term recovery of coral reefs after consecutive hurricanes in a Caribbean Island. 11th International Coral Reef Symposium. Fort Lauderdale, United States. July 2008
- Alvarez del Castillo, P.A., H. Reyes-Bonilla., M. Millet-Encalada & **L. Alvarez-Filip**. Cozumel Island, Mexico: A disturbance history. 11th International Coral Reef Symposium. Fort Lauderdale, United States. July 2008
- International Coral Reef Initiative) General Meeting in Fort Lauderdale, United States. July de 2008
- Alvarez-Filip, L.** Impacts of coral decline for Caribbean reef architecture. Student Conference on Conservation Science. Cambridge, UK, March 2009
- Alvarez-Filip L.**, Dulvy N.K., Gill J.A., Côté I.M. & Watkinson A.R. Functional loss of Caribbean reefs: impacts of coral decline for reef architecture. International Congress for Conservation Biology. 23rd annual Meeting of the Society for Conservation Biology. Beijing, China. July 2009
- Alvarez-Filip L.**, Dulvy N.K., Gill J.A., Côté I.M. & Watkinson A.R. Regionwide declines in the architectural complexity of Caribbean Coral Reefs. International Congress for Conservation Biology. second DIVERSITAS Open Science Conference. Cape Town, South Africa, October 2009
- Alvarez-Filip L.** Coral reef biodiversity and ecosystem structure: the role of species composition in providing architectural complexity. The 2010 International meeting of the Association for Tropical Biology and Conservation, Bali, Indonesia, July 2010

COURSES

- Dive security and medicine (CICESE, September, 2004)
- Introduction to the Hyperbaric Medicine. (DAN, Cozumel, 2006)
- Climatology and Climate Change. UQROO-CICY. Cozumel, Mexico. June, 2006
- Taxonomy and ecology of Caribbean pongees. Smithsonian Tropical Research Institute (STRI), Bocas del Toro Research Station, Panama. July, 2006.
- BESTNet DIVERSITAS-NSF Workshop: Biodiversity Information and Community-Based Use of Natural Resources. CONABIO, UNAM, Iztlán and Santa Cruz Tepetotutla, Oaxaca 11-18 June, 2009
- Experimental design and data analysis with R. The ATBC Asia-Pacific. Bali, Indonesia, July 2010.

AWARDS & SCHOLARSHIPS

- CONACYT, M.Sc. Scholarship, 2002-2004
- PADI Project AWARE Foundation, 2003
- Sigma Xi Grant-in-Aid of Research, 2003
- Department of Ecology, CICESE, 2004
- Travel stipend Awardee to: The first DIVERSITAS Open Science Conference, 2005
- STRI - Panama Government. Course of Taxonomy and ecology of Caribbean Sponges. 2006.
- CONACYT, PhD Scholarship. 2006-2009
- Awarded for the third best poster in the Student Conference on Conservation Science. Cambridge, UK, 2007
- Travel stipend Awardee to: 11th International Coral Reefs Symposium, 2008
- Travel stipend Awardee to: Student Conference on Conservation Science, Cambridge, UK, March 2009
- Travel stipend Awardee to: The second DIVERSITAS Open Science Conference, 2009

PROFESSIONAL SOCIETIES

- International Society of Reef Studies ([ISRS](#))
- Mexican Society of Coral Reefs ([SOMAC](#))
- Society for Conservation Biology ([SCB](#))
- Association for Tropical Biology and Conservation ([ATBC](#))
- Ecological Society of America ([ESA](#))

ANALYTICAL AND COMPUTATION SKILLS	Basic packages: Word, Excel, Power Point, Outlook, Access, etc Statistical analyses (univariate and multivariate): R, Statistica 6.0, Primer 6.0, PC-Ord, PAST, SPSS Design: Corel draw Geographic information system: ArcGIS
LANGUAGES	English read, write and speak Spanish mother tongue
REFEREES	Available on Request
