

## Curriculum Vitae

**PALOMARES, Maria Lourdes Distor**

2017-07-26



Dr. Maria Lourdes D. Palomares was born in Manila, Philippines. She grew up outside the old walled city of *Intramuros* during the difficult days of the Marcos Regime. After completing her BSc in 1981 at the University of the Philippines (UP), she ventured into computer science, completing several courses in COBOL and BASIC programming. In 1982, she joined the International Center for Living Aquatic Resources Management (ICLARM) as research assistant to Dr. John Munro, then director of the Resource Assessment and Management Program (RAMP) and Dr. Daniel Pauly, then senior scientist of the RAMP. She completed her MSc in Environmental Science in 1987 at UP while working fulltime at ICLARM, and was promoted to Research Associate with the Capture Fisheries Management Program (CFMP) under the supervision of Dr. Daniel Pauly. Her work focused on the gathering, restructuring and analysis of data on tropical fish population dynamics. Her work included growth, catch composition and virtual population analyses of the Peruvian *anchoveta*. In 1989, she left ICLARM for a PhD at the *Ecole Nationale Supérieure Agronomique de Toulouse* with Dr. Jacques Moreau and with a grant from the French government. This move added French to the list of languages she masters (fluency in English and Tagalog; reading Spanish).

In 1991, she rejoined ICLARM as a postdoctoral fellow with the FishBase Project, as a recipient of a two-year grant from the *Association des Universités Partiellement ou Entièrement de Langue Française* (AUPELF, Paris, France). In 1996, her language and computer skills coupled with her background in fisheries science and ecological modeling, led to her appointment as Software Development and Database Scientist for the FishBase team. She was also a resource person in the FishBase-associated ACP-EU Initiative, 'Training Program on Fisheries and Biodiversity Management' coordinated by Michael Vakily (later by Boris Fabres). She participated in 5 of these training workshops and conducted two on her own, i.e., follow-up workshop on ecosystem modeling in Nouméa, New Caledonia and the follow-up workshop on the use of FishBase analytical tools (length-frequency and other biological tools) in Dakar, Senegal. In April 2001, she was invited to deliver the inspirational speech to the graduating class of the Institute of Biology at UP (Diliman, Quezon City), a recognition of her young career as an aspiring Third World scientist. In September 2001, she was appointed as adjunct professor with the School of Environmental Science and Management (SESAM), University of the Philippines in Los Baños, Laguna (UPLB). She also held a 'Certificate of Aptitude' (10-01 to 09-05) from the French *Ministère de la Jeunesse, de l'Education Nationale et de la Recherche*, a prerequisite for candidature to professorships.

She joined *The Sea Around Us* at the Fisheries Centre, University of British Columbia in Vancouver, Canada in September 2001. Her tasks included assuring that the integration of fish-related data generated by members of the *Sea Around Us* and of the institute into FishBase. She remains with the *Sea Around Us*, with increasing responsibilities (including writing proposals for *Sea Around Us* activities) from research associate to senior scientist; and in June 2017, she accepted a lead role as its Project Manager. Below are some of the highlights of her work with the *Sea Around Us*.

In 2001-2006, she collaborated with one of FishBase's main partners, the *Muséum National d'Histoire Naturelle* in Paris, France in enhancing the museum's electronic fish catalog with geo-referenced localities, notably for old specimen records obtained by the various French expeditions during the period of European scientific expansion. She received the Tegner Memorial Grant in 2004 to assemble and rank abundance records from historic expeditions, devoted to push our baseline of biodiversity as far back in time as possible. As a continuation of this interesting research, she received a research grant from Conservation International to outline the historical ecology of the Bird's Head functional seascape.

In 2006-2016, she led biodiversity-related issues within the *Sea Around Us* Project, which, with the assistance of graduate students, resulted in the creation of several relevant databases, notably on commercial invertebrates. This led to the creation of SeaLifeBase, whose aim is to provide a 'FishBase-like' database for all other marine organisms (excluding fishes, i.e., already covered by FishBase). The FishBase Information Research Network in the Philippines implements SeaLifeBase. Deng continues to lead SeaLifeBase and spends at least one month in the Philippines, supervising the SeaLifeBase team and interacting with FishBase team members.

In 2016, Deng was asked to lead the *Sea Around Us* database team, working with the Vulcan Foundation, to improve the *Sea Around Us* infrastructure and its website. In June 2016, Deng ventured into grant writing for the *Sea Around Us*, and together with Dr Daniel Pauly, successfully raised funds from different funding sources to bridge the team funding to 2017.

In early 2017, Deng was asked to lead Quantitative Aquatics (Q-quatics) as its CEO. This Philippine NGO was built, among others, to host the *Sea Around Us* Consortium. One of the first activities Deng initiated with Q-quatics was a training workshop on the estimation of maximum sustainable yield from catch data for data-poor conditions. The one-day workshop was customized for members of the Philippine National Stock Assessment Program, and was instructed by Dr Rainer Froese. In mid-2017, Deng with Daniel Pauly successfully obtained grants from the Oak Foundation (2016-2021) and Oceana (2017-2018) for *Sea Around Us* initiatives via Quantitative Aquatics, the latter on estimating MSY from catches for most of the world's exploited stocks.

#### Positions held

- 01-06-2017 – present: Project Manager, *Sea Around Us*, Institute for the Oceans and Fisheries, University of British Columbia, 2202 Main Mall, Vancouver, BC V6T 1Z4 Canada
- 01-11-2005 – present: Project Coordinator, The SeaLifeBase Project, Fisheries Centre, University of British Columbia, 2202 Main Mall, Vancouver, BC V6T 1Z4 Canada
- 01-01-2007 – 31-05-2017: Senior Scientist, *Sea Around Us*, Fisheries Centre, University of British Columbia, 2202 Main Mall, Vancouver, BC V6T 1Z4 Canada
- 01-09-2001 – 30-12-2006: Research Associate, The *Sea Around Us* Project, Fisheries Centre, University of British Columbia, 6660 NW Marine Drive, Vancouver, BC V6T 1X2 Canada
- 01-01-1996 – 30-06-2001: Software Development and Database Scientist, The FishBase Project, International Center for Living Aquatic Resources Management (ICLARM), MC PO Box 2631, Makati, Metro Manila 0718, Philippines
- 01-10-1991 – 31-12-1995: Post Doctoral Fellow, The FishBase Project, International Center for Living Aquatic Resources Management (ICLARM), MC PO Box 2631, Makati, Metro Manila 0718, Philippines
- 01-04-1987 – 30-04-1989: Research Associate, Capture Fisheries Management Program, International Center for Living Aquatic Resources Management, ICLARM, MC PO Box 2631, Makati, Metro Manila 0718, Philippines
- 01-04-1982 – 30-03-1987: Research Assistant, Resource Assessment and Management Program, International Center for Living Aquatic Resources Management (ICLARM), MC PO Box 2631, Makati, Metro Manila 0718, Philippines

#### Awards/Grants

- Oceana, July 2017- to June 2018. Assessing exploited stocks of the world using the CMSY method. [Coauthor of proposal with Daniel Pauly].
- Paul M. Angell Family Foundation, November 2016 to December 2017. *Sea Around Us*: A global, community-driven marine fisheries catch database. [First author of proposal with Daniel Pauly].
- Marisla Foundation (Global Greengrants Fund), April 2017 to March 2018. *Sea Around Us* core funds. [First author of proposal with Daniel Pauly].
- Marisla Foundation (Global Greengrants Fund), September 2010-August 2011; September 2011-August 2012; September 2012-August 2013; September 2013-August 2014. SeaLifeBase as a repository of biological data of marine organisms of the Western Pacific Ocean, Antarctic and Western Indian Ocean, respectively.
- Oak Foundation, November 2010 to October 2011. SeaLifeBase covering the marine biodiversity of Belize. Science Conference, Belize June 29-30, 2011. [First author of proposal with Daniel Pauly].
- Global Ocean Legacy specific projects for island marine biodiversity program: SeaLifeBase and FishBase covering the marine biodiversity of the Pitcairn (2011), Kermadec (2012) and Easter Islands (2013). Negotiations on-going for mapping the marine biodiversity of French Polynesia, New Caledonia and Palau (July 2014-June 2015). Marine biodiversity of seven Mediterranean islands via SeaLifeBase and FishBase (March-April 2014): collaboration via the *Sea Around Us*.

- OEKOFISHMAN Project collaborator (2013-2015): SeaLifeBase covering the marine biodiversity of the Baltic and North Seas [Project proposal led by Rainer Froese].
- Biodiversity Research: Integrative Training and Education (BRITE) workshop on “*Creating your own research database: linking with major biodiversity information systems such as FishBase and SeaLifeBase*”, 14-18 February 2011, Fisheries Centre, University of British Columbia, Vancouver, Canada. [First author of proposal with Nicolas Bailly].
- Canadian Fund for Innovation, October 2010. Database development to support the Sea Life Abundance Project (database maintenance fund), Fisheries Centre, University of British Columbia. [Coauthor of proposal with Kai Chan].
- ASEAN Center for Biodiversity mini-grant, April-October 2010. The ASEAN Center for Biodiversity as the Southeast Asian Seas OBIS regional node. [First author of proposal with Nicolas Bailly].
- Census of Marine Life for Seamounts Online mini-grant, June 2008. ‘Enhancing Seamounts Online with occurrence records from historical expeditions’.
- Oak Foundation, Geneva, Switzerland, October 2007. Funds for the SeaLifeBase Project extension to 2010. [First of proposal with Daniel Pauly].
- Ocean Biodiversity Information System mini-grant, April 2007. ‘Enhancing the World Register of Marine Species through SeaLifeBase.’
- Canadian Fund for Innovation, December 2006. Database development to support the Sea Life Abundance Project, Fisheries Centre, University of British Columbia. [Coauthor of proposal with Kai Chan].
- The Willow Grove Foundation, January 2006. Grant given to enhance the contents of the SeaLifeBase database. [Coauthor of proposal with Daniel Pauly].
- Oak Foundation, Geneva Switzerland, October 2005. Start-up funds for the SeaLifeBase Project. [Coauthor of proposal with Nicolas Bailly and Daniel Pauly].
- One of five finalists of the outstanding Filipino women fisheries research scientists chosen by the Department of Science and Technology, Manila, Philippines in April 2005.
- Mia Tegner Memorial Grant, June 2004, Marine Conservation Biology Institute, Seattle, Washington. ‘Shifting the baseline’: a knowledge base of fish abundance anecdotes from early European explorations.
- Post-doctoral grant, 1991-1992, French marine science in FishBase, *Association des Universités Partiellement ou Entièrement de Langue Française* (AUPELF, Paris, France).

**Selected list of publications (a full list can be requested separately)**

- Zeller, D, Cashion, T., Palomares, M, Pauly, D. 2017. Global marine fisheries discards: a synthesis of reconstructed data. *Fish and Fisheries* 2017, 00: 1-10. DOI: <https://doi.org/10.1111/faf.12233>.
- Palomares, MLD, Cheung, WWL, Lam, VWY, Pauly, D. 2016. Chapter 4. The distribution of exploited marine biodiversity, p. 46-58. In: Pauly, D and Zeller, D (Eds.), *Global Atlas of Marine Fisheries: A Critical Appraisal of Catches and Ecosystem Impacts*. Island Press, USA.
- Zeller, D, Palomares, MLD, Tavakolie, A, Ang, M, Belhabib, D, Cheung, WWL, Lam, VWY, Sy, E, Tsui, G, Zyllich, K, Pauly, D. 2016. Still catching attention: *Sea Around Us* reconstructed global catch data, their spatial expression and public accessibility. *Marine Policy* 70: 145-152.
- Palomares, M.L.D., and D. Pauly (Editors) 2015. *Marine fisheries catches of SubAntarctic Islands, 1950 to 2010*. Fisheries Centre Research Reports 23(1). Fisheries Centre, University of British Columbia [ISSN 1198-6727]. 45 p.
- Palomares, M.L.D., and D. Pauly. 2014. *Philippine Marine Fisheries Catches: A Bottom-up Reconstruction, 1950 to 2010*. The Fisheries Centre, University of British Columbia, Vancouver, Canada. Fisheries Centre Research Reports 22(1), 171 p.
- Palomares, M.L.D. and Pauly, D. 2014. SeaLifeBase. World Wide Web electronic publication. [www.sealifebase.org](http://www.sealifebase.org), version (06/2014).

- Cheung, W.W.L., J.L. Sarmiento, J. Dunne, T.L. Frolicher, V.W.Y. Lam, M.L.D Palomares, R. Watson and D. Pauly, D. 2013. Shrinking of fishes exacerbates impacts of global ocean changes on marine ecosystem. *Nature Climate Change*, doi:10.1038/nclimate1691.
- Al-Abdulrazzak, D., R. Naidoo, M.L.D. Palomares and D. Pauly. 2012. Gaining perspective on what we've lost: the reliability of encoded anecdotes in historical ecology. *PLoS ONE* 7(8): e43386. doi:10.1371/journal.pone.0043386.
- Palomares, M.L.D., Bailly, N., 2011. Organizing and disseminating marine biodiversity information: the FishBase and SeaLifeBase story. In: Christensen, V., Maclean, J. (eds.), *Ecosystem Approaches To Fisheries. A Global Perspective*, p. 24-26. Cambridge University Press.
- Palomares, M.L.D., Pauly, D. 2009. The growth of jellyfishes. *Hydrobiologia* 616(1): 11-21.
- Palomares, M.L.D., Pauly, D. 2008. Editors. *Von Bertalanffy Growth Parameters of Non-fish Marine Organisms*. Fisheries Centre Research Reports 16(10). Fisheries Centre, UBC, Vancouver, Canada.
- Palomares, M.L.D., Heymans, J.J., Pauly, D. 2007. Historical ecology of the Raja Ampat Archipelago, Papua Province, Indonesia. *History and Philosophy of the Life Sciences* 29: 33-56.
- Palomares, M.L.D., Mohammed, E., Pauly, D. 2006. European expeditions as a source of historic abundance data on marine organisms: a case study of the Falkland Islands. *Environmental History* 11 (October 2006): 835-847.
- Pauly, D., Palomares, M.L.D. 2005. Fishing down marine food webs: it is far more pervasive than we thought. *Bulletin of Marine Science* 76(2):197-211.
- Palomares, M.L.D., Pauly, D. 2004. Biodiversity of Namibian waters: a review of currently available information, p. 53-74. In: U.R. Sumaila, D. Boyer, M.D. Skogen and S. I. Steinshamn (eds.), *Ecological, Economic and Social Aspects of Namibian Fisheries*. Eburon Academic Publishers. Delft, Netherlands.
- Palomares, M.L.D., Samb, B., Diouf, T., Pauly, D. Editors. 2003. *Fish biodiversity: local studies as basis for global inferences*. ACP/EU Fisheries Research Report 14. ACP-EU Fisheries Initiative, Brussels, Belgium. 281 p.
- Pauly, D., Palomares, M.L.D., Vakily, J.M. Editors. 2002. *Mass-balance trophic models of Northwest African marine ecosystems*. SIAP Tech. Doc. (SIAP/EP/DT/03) No. 3. SIAP, Dakar, Senegal. 146 p.
- Pauly, D., Palomares, M.L.D. 2001. Chapter 4. Fishing down marine food webs: an update, p. 47-56. In: L. Bendell-Young and P. Gallagher (eds.), *Waters in Peril*. Kluwer Academic Publishers, USA.
- Pauly, D., Palomares, M.L.D., Froese, R., Sa-a, P., Vakily, M., Preikshot, D., Wallace, S. 2001. Fishing down Canadian aquatic food webs. *Canadian Journal of Fisheries and Aquatic Science* 58:51-62.
- Froese, R., Palomares, M.L.D. 2000. Growth, length-weight relationship, maximum length and length at first maturity of the coelacanth, *Latimeria chalumnae*. *Environmental Biology of Fishes* 58:45-52.
- Pauly, D., Christensen, V., Froese, R., Palomares, M.L.D. 2000. Fishing down aquatic food webs. *American Scientist* 88:46-51.
- Palomares, M.L.D., Pauly, D. 1998. Predicting the food consumption of fish populations as functions of mortality, food type, morphometrics, temperature and salinity. *Marine and Freshwater Research* 49(5):447-453.
- Palomares, M.L.D., Pauly, D. 1989. A multiple regression model for predicting the food consumption of marine fish populations. *Australian Journal of Marine and Freshwater Research* 40(3):259-284.
- Palomares, M.L.D., Muck, P., Mendo, J., Chuman, E., Gomez, O., Pauly, D. 1987. Growth of the Peruvian anchoveta (*Engraulis ringens*), 1953 to 1982, p. 117-141. In: D. Pauly and I. Tsukayama (eds.), *The Peruvian Anchoveta and its Upwelling Ecosystem: Three Decades of Change*. ICLARM Studies and Reviews 15.

#### Membership in societies

Association of Systematic Biologists of the Philippines (<http://philjol.info/index.php/PJSB>). Asian Fisheries Society. MC PO Box 2631, Makati, Metro Manila 0718, Philippines.

Network of Tropical Fisheries Scientists (NTFS). FAO/DANIDA/ICLARM, c/o ICLARM, MC PO Box 2631, Makati, Metro Manila 0718, Philippines.

#### **Workshops/conferences organized or co-organized**

Introduction to CMSY/BSM Stock Assessment, Khush Hall, IRRI, Los Baños, Laguna, Philippines, 13 January 2017. Organizer and co-lecturer.

13<sup>th</sup> FishBase Symposium on *FishBase and SeaLifeBase for teaching and research in aquatic science, celebrating 25 years of FishBase and 10 years of SeaLifeBase*. 1 September 2015, IRRI, Los Baños, Laguna, Philippines.

FishBase and SeaLifeBase for Teachers, Davao del Norte State College, ?? March 2015.

12<sup>th</sup> FishBase Symposium on *Big Old Data and Shiny New Insights: Using FishBase for Research*, Beaty Biodiversity Museum, University of British Columbia, Vancouver 8 September 2014.

National Symposium on Fisheries & Philippine Fisheries: Taking Stock; Oceana-Philippines in partnership with the *Sea Around Us* of the Fisheries Centre (University of British Columbia, Vancouver), 03-05 Nov 2014, Luxent Hotel, Quezon City, Philippines.

ELEFAN Training Workshop, Dakar, Senegal June 2013 [Co-organized with Daniel Pauly] *Too Precious to Drill: the Marine Biodiversity of Belize*, Belize City, 2011

Biodiversity Research: Integrative Training and Education (BRITE) workshop on *Creating your own research database: linking with major biodiversity information systems such as FishBase and SeaLifeBase*, 14-18 February 2011, Fisheries Centre, University of British Columbia, Vancouver, Canada. [Senior author of proposal with Nicolas Bailly; Organizer].

SEAOBIS Technical Workshop, ASEAN Center of Biodiversity (ACB), 5 July 2010 [SeaLifeBase co-organizer with FishBase].

Ecopath 25 years: conference and workshops, Fisheries Centre, University of British Columbia, Vancouver, Canada 30 August to 1 September 2009 [SAUP co-organizer].

Session 4.4 on *Emerging paradigms in coastal research*, World Conference on Marine Biodiversity, Valencia, Spain, 11-14 November 2008 [Session Chair].

Ecopath Training Workshop for the Asia-Pacific large marine ecosystems, The WorldFish Center, IRRI, Los Baños, Philippines, February 2008 [SAUP Organizer].

The SeaLifeBase workshop, Side-event to the Twelfth Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, UNESCO, Paris, 3 July 2007 [Organizer].

The FishBase mini-Symposium, 'Fish in Ecosystems', Fisheries Centre, University of British Columbia, Vancouver, Canada, 6 September 2006 [Organizer].

Ecopath Training Workshop for the Kerguelen Islands, Muséum national d'histoire naturelle, Paris, France, October 2003 [SAUP co-organizer].

Symposium on "Marine fisheries, Ecosystems, and Societies in West Africa: Half a Century of Change," Dakar, Senegal, 26-28 June 2002 [SAUP co-organizer].

Ecopath Training Workshop for West African Marine Ecosystems, Fisheries Centre, UBC, Vancouver, Canada, January 2002 [SAUP main organizer].

FishBase/ACP/EU Training Program on Fisheries and Biodiversity Management follow-up workshops held in: Nouméa, New Caledonia in October 2000 and Dakar, Senegal in February 2001 [SAUP main organizer].

#### **Courses/Workshop attended as expert/resource person**

Café scientifique, Pourquoi de la biodiversité dans un atlas de la pêche mondiale ? 8 June 2017, Alliance Française, Vancouver, BC, Canada.

Ecosystem Modelling, Course number: FISH501, FishBase for Ecopath users, Institute for the Oceans and Fisheries, 16 May 2017 and summer term 2016, guest lecturer.

Diversity and Evolution of Fishes, Course number: BIO465, University of British Columbia, winter term 2015, co-lecturer with Daniel Pauly.

SeaLifeBase 'FishBase for groups other than fishes', HCMR-Seminar Series, 21 November 2014, Hellenic Centre for Marine Research, Gournes, Crete.

The Salish Sea in FishBase and SeaLifeBase (M.L.D. Palomares, P.M.S. Yap, E. Bato, J.C. Espedido, L.P. Urriquia, M.P. Saniano, V.A. Parducho, D. Pauly). Salish Sea Conference, 30 Apr – 02 May 2014, UBC, Vancouver, Canada.

Completing island ecosystems with FishBase and SeaLifeBase, 11<sup>th</sup> FishBase Symposium: More Fish and more. 2 Sep 2013, Thessaloniki, Greece.

FishBase and SeaLifeBase current status and efforts to complete lists by areas (N. Bailly and M.L.D. Palomares). Fish for Food Seminar Series. 25 Jun 2012, WorldFish Center, Penang, Malaysia.

FishBase, SeaLifeBase and database-driven ecosystem modeling. 14 Dec 2009, Marine Science Institute, University of the Philippines.

Aquatic Biodiversity Informatics Office, the WorldFish Center/FIN Products, Service, Partnerships (M.L.D. Palomares, N. Bailly, and M. Pan), EAS Congress, 24-25 Nov 2009, PICC, Manila, Philippines.

SeaLifeBase: 'FishBase for groups other than fishes' (M.L.D. Palomares), 7<sup>th</sup> FishBase Symposium, 9 Sep 2009, FAO, Rome.

Toward an account of the biodiversity of Chinese coastal and shelf waters: the roles of SeaLifeBase, FishBase and other online databases (B. Huang, W. Cheung, V.W.Y. Lam, M.L.D. Palomares, P. Sorongon, and D. Pauly), 6<sup>th</sup> FishBase Symposium, 1 Sep 2008, Chinese Academy of Fisheries Science, Qing Dao, China.

SeaLifeBase as a compliment to, and extension of, FishBase (D. Pauly and M.L.D. Palomares), 5<sup>th</sup> FishBase Symposium, 5 Sep 2007, Royal Museum for Central Africa, Tervuren, Belgium.

SeaLifeBase as a complement to and extension of FishBase (M.L.D. Palomares), 2nd International Barcode of Life Conference, 22 Sep 2007, Taipei, Taiwan.

FAO International Technical Expert Workshop on "Improving the information base for aquatic genetic resources for The State of the World's Aquatic Genetic Resources", 1-4 March 2006, Madrid.

FishBase/ACP/EU Training Program on Fisheries and Biodiversity Management held in: Nouméa, New Caledonia in October 1997; Port of Spain, Trinidad and Tobago in June 1998; Swakopmund, Namibia in December 1998; Dakar, Senegal in April 1999; and Nairobi, Kenya in August 1999.

HEST/TAFIRI/FAO/DANIDA Regional Training Course in Tropical Fish Stock Assessment, Mwanza, Tanzania, 4-26 February 1989.

Training Course on the use of Microcomputers and of Length-Frequency Data for Fishery Stock Assessment, Instituto del Mar del Peru, Callao, Peru, 29 August - 2 September 1987.

FAO/DANIDA Follow-up Training Course in Stock Assessment in the Tropics, University of the Philippines, 12 January - 6 February 1987.

#### **Other positions held**

CEO, Quantitative Aquatics, since 2017.

Section Editor, Marine Fisheries, Aquaculture and Living Resources, *Frontiers in Marine Science*, since 2015.

Associate Scientific Director, FishBase Information and Research Group, since 2012.

SeaLifeBase Project Leader, since 2005.

FishBase Consortium Chair 2014-2015.

FishBase Consortium Vice-Chair 2013-2014.

FishBase Consortium Chair 2006-2007.

FishBase Consortium Vice-Chair 2005-2006.