

Curriculum Vitae

PALOMARES, Maria Lourdes

1

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Biography

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 programming courses. 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, including 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 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 grant from the *Association des Universités Partiellement ou Entièrement de Langue Française* (AUPELF, Paris, France). In 1996, she was appointed 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. She participated in five training workshops as an expert 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 career as a 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'Éducation 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 remained with the *Sea Around Us*, with increasing responsibilities from research associate to senior scientist; and in June 2017, she accepted a lead role as its Manager. In early 2017, Deng was appointed to lead Quantitative Aquatics (Q-quatics) as its Science Director. This Philippine NGO was established to host FishBase, SeaLifeBase and activities of the *Sea Around Us* as a member of the FishBase Consortium, of which Deng is the current coordinator. In mid-2017, Deng with Daniel Pauly successfully obtained grants from the Oak Foundation (2016-2021), Oceana (2017-2018) and the Minderoo Foundation (2019-2020) for *Sea Around Us* initiatives via Q-quatics, the last two on global assessments of most of the world’s exploited stocks.

Curriculum Vitae

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2

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Positions held

- 17-02-2018 to present: Science Director, Quantitative Aquatics, IRRI – Khush Hall, Los Baños, Laguna, Philippines.
- 01-06-2017 – present: Manager, *Sea Around Us*, Institute for the Oceans and Fisheries, University of British Columbia, 2202 Main Mall, Vancouver, BC V6T 1Z4 Canada
- 01-09-2015 – present: Coordinator, FishBase Consortium
- 01-11-2005 – present: Lead, SeaLifeBase, Quantitative Aquatics, Khush Hall, IRRI, Los Baños, Laguna, Philippines.
- 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

- UBC Faculty of Science Excellence in Service Award, December 2019.
- Frontiers in Marine Science Specialty Chief Editor Award, October 2018.
- 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).

Grants

- Pew Charitable Trusts, September 2018 to August 2020. Biodiversity at EEZ level and Tuna assessment of French Polynesia.
- Rare, July 2018 to June 2020 and September 2020 to August 2021. *Sea Around Us* core funds.
- Oak Foundation, April 2018 to March 2023. The Sea Around Us as Support for the Oak Foundation’s Work on Small-Scale Fisheries
- David and Lucille Packard Foundation, June 2018 to May 2020 and July 2020 to June 2022. Helping the Sea Around Us to help more of Civil Society.
- Conseil Sous-Regional de la Peche (MAVA Foundation), July 2019 to June 2021, Support for Sustainable Management of Small Pelagic Resources in the Area of the Sub-Regional Fisheries Commission.

Curriculum Vitae

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3

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Oceana, July 2017 to June 2018 and September 2018 to August 2019. Assessing exploited stocks of the world using the CMSY method.

Marisla Foundation (Global Greengrants Fund), April 2017 to March 2018, November 2018 to October 2019, and May 2020 to April 2021. *Sea Around Us* core funds.

Paul M. Angell Family Foundation, November 2016 to December 2017. *Sea Around Us*: A global, community-driven marine fisheries catch database.

OEKOFISHMAN Project collaborator (2013-2015): SeaLifeBase covering the marine biodiversity of the Baltic and North Seas

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.

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.

Canadian Fund for Innovation, October 2010. Database development to support the Sea Life Abundance Project (database maintenance fund), Fisheries Centre, University of British Columbia.

ASEAN Center for Biodiversity mini-grant, April-October 2010. The ASEAN Center for Biodiversity as the Southeast Asian Seas OBIS regional node.

Census of Marine Life for Seamounts Online mini-grant, June 2008. Enhancing Seamounts Online with occurrence records from historical expeditions.

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.

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.

Oak Foundation, November 2010 to October 2011. SeaLifeBase covering the marine biodiversity of Belize. Science Conference, Belize June 29-30, 2011.

The Willow Grove Foundation, January 2006. Donation to enhance the contents of the SeaLifeBase database.

Oak Foundation, October 2005- September 2011. SeaLifeBase global information system of marine biodiversity.

Selected list of publications

- Palomares MLD, Khalfallah M, Zeller D and Pauly D. The Fisheries of the Arabian Sea Large Marine Ecosystem, In: L.A. Jawad (ed.). *The Arabian Seas: Biodiversity, Environmental Challenges and Conservation Measures*. Springer Publisher, Germany. [in press]
- Palomares MLD, Pauly D (current year) SeaLifeBase. World Wide Web electronic publication. www.sealifebase.org.
- Palomares MLD, Khalfallah M, Woroniak J and Pauly D (eds.) (2020) Assessment of 14 species of small pelagic fish caught along the coast of Northwest African countries. p. 69-96 In: MLD Palomares, M Khalfallah, J Woroniak and D Pauly D (eds.). *Assessments of marine fisheries resources in West Africa with emphasis on small pelagics*, Fisheries Centre Research Report 28(4), Institute for the Oceans and Fisheries, University of British Columbia.
- Palomares MLD, Froese R, Derrick B, Meeuwig JJ, Nöel SL, Tsui G, Woroniak J, Zeller D, Pauly D (2020) Fishery biomass trends of exploited fish populations in marine ecoregions, climatic zones and ocean basins”, *Estuarine, Coastal and Shelf Science* 243: 06896.
- Palomares MLD, Pauly D (2019) On the creeping increase of vessels’ fishing power. *Ecology and Society* 23(3): 31.
- Palomares MLD, Pauly D (2019) Coastal Fisheries: The Past, Present, and Possible Futures, pp. 569-576. In Elliott M, Day J, Wolanski E, Ramachandran R (eds.) *Coasts and Estuaries: The Future*. Elsevier Inc., London.
- 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.
- Palomares MLD, 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 MLD, Pauly D (2009) The growth of jellyfishes. *Hydrobiologia* 616(1): 11-21.
- Palomares MLD, Heymans JJ, Pauly D (2007) Historical ecology of the Raja Ampat Archipelago, Papua Province, Indonesia. *History and Philosophy of the Life Sciences* 29: 33-56.
- Palomares MLD, 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.
- Palomares MLD, 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 MLD, 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 MLD, 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 MLD, 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.

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- Sumaila UR, Zeller D, Hood L, Palomares MLD and Pauly D (2020) Illicit trade in marine fish catch and its effects on ecosystems and people worldwide. *Science Advances* 6(9): eaaz3801.
- Wang Y, Liang C, Wang Y, Xian W and Palomares ML (2020) Stock Status Assessments for 12 Exploited Fishery Species in the Tsushima Warm Current Region, Southwest Japan and East China, Using the CMSY and BSM Methods. *Frontiers in Marine Science* 7:640. doi: 10.3389/fmars.2020.00640
- Zeller D, Hood L, Palomares MLD, Sumaila UR, Khalfallah M, Belhabib D, Woroniak J and Pauly D (2020) Comparative fishery yields of African Large Marine Ecosystems. *Environmental development* pp. 100543 <https://doi.org/10.1016/j.envdev.2020.100543>.
- Froese R, Winker H, Coro G, Demirel N, Tsikliras AC, Dimarchopoulou D, Scarcella G, Palomares MLD, Dureuil M and Pauly D (2019) Estimating stock status from relative abundance and resilience. *ICES Journal of Marine Science*, fsz230 <https://doi.org/10.1093/icesjms/fsz230>
- Greer K, Zeller D, Woroniak J, Coulter A, Winchester M, Palomares MLD and Pauly D (2019) Global trends in carbon dioxide (CO₂) emissions from fuel combustion in marine fisheries from 1950-2016. *Marine Policy* 107:103491.
- Grüss A, Palomares MLD, Poelen J, Barile J, Aldemita C, Ortiz S, Barrier N, Shin YJ, Simons J, Pauly D (2019) Building bridges between global information systems on marine organisms and ecosystem models. *Ecological Modelling* 398: 1-19.
- Hayden B, Palomares MLD, Smith BE and Poelen JH. (2019) Biological and environmental drivers of trophic ecology in marine fishes – a global perspective. *Scientific Reports* 9:11415 <https://doi.org/10.1038/s41598-019-47618-2>
- Sala E, Mayorga J, Costello C, Kroodsma D, Palomares MLD, Pauly D, Sumaila R, Zeller D (2018) The economics of fishing the high seas. *Science Advances* 4: eaat2504.
- Tickler D, Meeuwig J, Palomares MLD, Pauly D, Zeller D (2018) Far from home: Distance patterns of global fishing fleets. *Science Advance* 4 (8): eaar3279 doi: 10.1126/sciadv.aar3279
- Cashion T, Al-Abdulrazzak D, Belhabib D, Derrick B, Divovich E, Moutopoulos DK, Noël S-L, Palomares MLD, Teh LCL, Zeller D, Pauly D (2018) Reconstructing global marine fishing gear use: Catches and landed values by gear type and sector. *Fisheries Research* 206: 57-64.
- Victorero L, Watling L, Palomares, MLD, Nouvian C (2018). Out of sight, but within reach: A global history of bottom-trawled deep-sea fisheries from >400 m depth. *Frontiers in Marine Science*, vol 5. doi: 10.3389/fmars.2018.00098
- Wabnitz C, Lam VWY, Reygondeau G, Teh LCL, Al-Abdulrazzak D, Khalfallah M, Pauly D, Palomares MLD, Zeller D and Cheung WWL (2018) Climate change impacts on marine biodiversity, fisheries and society in the Arabian Gulf. *PLoS ONE* 13(5): e0194537.
- Zeller D, Cashion T, Palomares MLD, Pauly D (2018) Global marine fisheries discards: a synthesis of reconstructed data. *Fish & Fisheries* 19(1): 30-39 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>.
- 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.
- Cheung WWL, Sarmiento JL, Dunne J, Frolicher TL, Lam VWY, Palomares MLD, Watson R, 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, Naidoo R, Palomares MLD, Pauly D (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.
- Pauly D, Palomares MLD (2005) Fishing down marine food webs: it is far more pervasive than we thought. *Bulletin of Marine Science* 76(2):197-211.

Curriculum Vitae

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6

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Pauly D, Palomares MLD (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 MLD, 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 MLD (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 MLD (2000) Fishing down aquatic food webs. *American Scientist* 88:46-51.