

JAVIER ORTEGA-HERNÁNDEZ

Contact details

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Personal details

Date of birth: 5th September 1983
Nationality: Mexican [Permanent Resident]
Expertise: Origin and early evolution of animals

PROFESSIONAL APPOINTMENTS

- 2019- Assistant Professor of Organismic and Evolutionary Biology
Department of Organismic and Evolutionary Biology, Harvard University, USA
- 2019- Curator of Invertebrate Paleontology
Museum of Comparative Zoology, Harvard University, USA
- 2016-18 Herchel-Smith Postdoctoral Research Fellow in Biological Sciences
Department of Zoology, University of Cambridge, UK
Bye Fellow, Emmanuel College
- 2013-16 Research Fellow, Emmanuel College
Department of Earth Sciences, University of Cambridge, UK

ACADEMIC BACKGROUND

- 2013 PhD in Earth Sciences
Department of Earth Sciences, University of Cambridge, UK
- 2009 MSc in Palaeobiology (Distinction)
School of Earth Sciences, University of Bristol, UK
- 2007 Licenciatura en Biología (Undergraduate degree in Biology)
Facultad de Ciencias, Universidad Nacional Autónoma de México, México

RESEARCH GRANTS, AWARDS AND DISTINCTIONS

Grant funding awarded since 2019 (USD): \$1,422,538.00.

- 2021-26 NSF CAREER award – *Ecological turnover at the dawn of the Great Ordovician Biodiversification Event – quantifying the Cambro-Ordovician transition through the lens of exceptional preservation*. PI. \$829,539.00.
- 2019 Harvard China Fund – *Breathing new life into the earliest animals: computed tomography of early Cambrian fossils from South China*”. PI. \$50,000.00.
- 2019 William F. Milton Fund – *Revealing the nearshore cradle of animal evolution: a new exceptionally preserved soft-bodied fossil biota from the early Cambrian of British Columbia*. PI. \$49,907.00.
- 2019 Putnam Exploration Grant - *A new early Cambrian Burgess Shale-type deposit from shallow marine waters*. PI. \$10,850.00.
- 2019-22 NSF Collaborative Research: *Convergent evolution and diversification of the crab body plan over 200 million years*. PI. \$482,242.00.
- 2019-21 Investigador Nacional Nivel I – Sistema Nacional de Investigadores, CONACYT.
- 2017 Chinese Palaeontological Society recognition to Yang et al. 2016, *PNAS* 113: 2988-2993, as one of top ten palaeontological studies published in 2016.
- 2016 Most cited publication in *Acta Palaeontologica Polonica* for 2014, awarded for paper “*Burgess Shale-type microfossils from the middle Cambrian Kaili Formation, Guizhou Province, China*”.

- 2015 Paleonturología 2015, awarded by Fundación Conjunto Paleontológico de Teruel-Dinópolis (Spain), for best palaeontological study published in 2014. €4,500.00.
- 2015 Palaeontological Association Research Grant. Awarded by the Palaeontological Association (UK) for field-based research project “*The origins of aerial breathing in terrestrial ecosystems: insights from virtual fossil reconstruction*”. PI. £6,149.00.
- 2015 Herchel Smith Postdoctoral Research Fellowship in Biological Sciences, University of Cambridge, UK. £139,054.00.
- 2014 National Geographic Exploration Grant. Awarded by the National Geographic Society for field-based research project “*The Weeks Formation Lagerstätte (Utah, USA): deciphering animal life during the late Cambrian*”. Co-I. \$16,085.00.
- 2014 Highly commended poster presentation. Awarded to an early career researcher at the 58th Annual Meeting of the Palaeontological Association, University of Leeds, UK.
- 2014 IPA and IPC grant. Awarded by the International Palaeontological Association to support attendance to the Fourth International Palaeontological Congress, Argentina.
- 2014 Ernst Mayr Travel Grant in Animal Systematics. Awarded by the Museum of Comparative Zoology, Harvard University (USA) for collections-based research project “*The middle Cambrian lobopodian Aysheaia pedunculata revisited: significance for panarthropod evolution*”. \$2,080.00.
- 2014 Systematics Research Fund. Awarded by the Systematics Association and the Linnean Society (UK) for collections-based research project “*The middle Cambrian lobopodian Aysheaia pedunculata revisited: significance for panarthropod evolution*”. £1,090.45.
- 2013 Emmanuel College Stipendiary Research Fellowship, University of Cambridge, UK. £66,699.00.
- 2013 Schuchert and Dunbar Grant. Awarded by the Yale Peabody Museum of Natural History (USA) for collections-based research project “*Arthropod palaeobiology from the Ordovician Fezouata Lagerstätte*”. \$1,000.00.
- 2012 Academic excellence award. Granted by the Secretaría de Educación Pública, México. £2,420.00.
- 2011 Callomon Award. Granted by the Palaeontological Association (UK) for field-based research project “*A new locality with Burgess Shale-type fossil preservation from British Columbia*”. £1,464.00.
- 2010 Highly commended oral presentation. Awarded at the postgraduate student conference Progressive Palaeontology 2010, University of Bristol, UK.
- 2009 CONACYT scholarship. Awarded by Mexican government to pursue PhD in Earth Sciences at the University of Cambridge, UK. £65,700.00.
- 2009 Cambridge Trusts & Darwin College bursary to pursue PhD in Earth Sciences. £30,000.00.
- 2008 CONACYT scholarship. Awarded by Mexican government to pursue MSc in Palaeobiology at the University of Bristol, UK. £19,800.00.

PEER REVIEWED PUBLICATIONS

GOOGLE H-INDEX: 19

*Denotes corresponding or co-corresponding author

CITATIONS: 1317

- 64.- Pates, S., Wolfe, J.M., Lerosey-Aubril, R., Daley, A.C., and **ORTEGA–HERNÁNDEZ, J.** 2022. New opabiniid diversifies the weirdest wonders of the euarthropod lower stem group. *Proceedings of the Royal Society B* in press.
- 63.- Gilbert, P., Bergmann, K.D., Boekelheide, N., Tambutte, S., Mass, T., Marin, F., Adkins, J.F., Erez, J., Gilbert, B., Knutson, V., Cantine, M., **ORTEGA–HERNÁNDEZ, J.**, and Knoll, A.H. 2022. Biomineralization: integrating mechanism and evolutionary history. *Science Advances* in press.

- 62.- Schmidt, M., Hou, X.G., Belojevic, J., Zhai, D., Mai, J., Melzer, R.R., ***ORTEGA–HERNÁNDEZ, J.**, and Liu, Y. 2022. Before trilobite legs: *Pygmaclypeatus daziensis* reconsidered and the ancestral appendicular organization of Cambrian arthropods. *Philosophical Transactions of the Royal Society B* 20210030 (doi: 10.1098/rstb.2021.0030).
- 61.- ***ORTEGA–HERNÁNDEZ, J.**, Lerosey-Aubril, R., Losso, S.R., and Weaver, J.C. 2022. Neuroanatomy in a middle Cambrian mollisoniid and the ancestral nervous system organization of chelicerates. *Nature Communications* 13: 410 (doi: 10.1038/s41467-022-28054-9).
- 60.- Jiao, D.G., Pates, S., Lerosey-Aubril, R., ***ORTEGA–HERNÁNDEZ, J.**, Yang, J., Lan T., and Zhang, X.G. 2021. New multipodomorous appendages of stem group euarthropods from the Cambrian (Stage 4) Guanshan Konservat-Lagerstätte. *Royal Society Open Science* 8: 211134 (doi: 10.1098/ros.211134).
- 59.- Wolfe, J.M. and ***ORTEGA–HERNÁNDEZ, J.** 2021. Evolution: Oh, my Cambrian nerves. *Current Biology* 31: R1132-R1135 (doi: 10.1016/j.cub.2021.08.065).
- 58.- Mapalo, M. A., Robin, N., Boudinot, B.E., ***ORTEGA–HERNÁNDEZ, J.**, Barden, P.A. 2021. A tardigrade in Dominican amber. *Proceedings of the Royal Society B* 288: 20211760 (doi: 10.1098/rspb.2021.1760).
- 57.- Parry, L.A., Lerosey-Aubril, R., Weaver, J.C., and ***ORTEGA–HERNÁNDEZ, J.** 2021. Cambrian comb jellies from Utah illuminate the early evolution of nervous and sensory systems in ctenophores. *iScience* 24: 102943 (doi: 10.1016/j.isci.2021.102943).
- 56.- Zhu, X., Lerosey-Aubril, R. and **ORTEGA–HERNÁNDEZ, J.** 2021. Furongian (Jiangshanian) occurrences of radiodonts in Poland and South China and the fossil record of Hurdiidae. *PeerJ* 9: e11800 (doi: 10.7717/peerj.11800).
- 55.- Bicknell, R.D.C., **ORTEGA–HERNÁNDEZ, J.**, Edgecombe, G.D., Gaines, R. R., and Paterson, J.R. 2021. Central nervous system of a 310-m.y.-old horseshoe crab: expanding the taphonomic window for nervous system preservation. *Geology* 49: 1381-1385 (doi: 10.1130/G49193.1).
- 54.- Jiao, D.G., Pates, S., Lerosey-Aubril, R., ***ORTEGA–HERNÁNDEZ, J.**, Yang, J., Lan T., and Zhang, X.G. 2021. Endemic radiodonts of the Cambrian Stage 4 Guanshan biota, of South China. *Acta Palaeontologica Polonica* 66: 255-274 (doi: 10.4101/app.00870.2020).
- 53.- Bicknell, R.D.C., Holmes, J.D., Edgecombe, G.D. Losso, S.R., **ORTEGA–HERNÁNDEZ, J.**, Wroe, S., and Paterson, J.R. 2021. Biomechanical analysis of Cambrian euarthropods limbs reveal their effectiveness in mastication and durophagy. *Proceedings of the Royal Society B* 20202075 (doi: 10.1098/rspb.2020.2075).
- 52.- Hunter, A.W., and ***ORTEGA–HERNÁNDEZ, J.** 2021. A new somasteroid from the Fezouata Lagerstätte in Morocco and the early Ordovician origin of Asterozoa. *Biology Letters* 20200809 (doi: 10.1098/rsbl.2020.0809).
- 51.- Pates, S., Lerosey-Aubril, R., Daley, A.C., Kier, C., Bonino, E., and **ORTEGA–HERNÁNDEZ, J.** 2021. Ecology and affinities of the diverse radiodont fauna from the Marjum Formation of Utah, USA (Cambrian, Drumian). *Peer J* 9: e10509 (doi: 10.7717/peerj.10509).
- 50.- Mángano, M.G., Piñuela, L., Buatois, L.A., **ORTEGA–HERNÁNDEZ, J.**, Rodríguez-Tovar, F. J., and García-Ramos, J. C. 2021. Paleoeologic and paleoenvironmental implications of a new trace fossil recording infaunal moulting in Devonian marginal-marine settings. *Palaeogeography, Palaeoclimatology, Palaeoecology* 561: 110043 (doi: 10.1016/j.palaeo.2020.110043).
- 49.- Du, K.S., **ORTEGA–HERNÁNDEZ, J.**, Yang, J., Yang, X.Y., Li, W., Du, J.L., Guo, Q.H., He, J.F., Li, K.R., and Zhang, X.G. 2020. A new Chengjiang-type Konservat Lagerstätte from the Cambrian Stage 3 of Sichuan, China. *Earth Science Reviews* 211: 103409 (doi: 10.1016/j.earscirev.2020.103409).

- 48.- Liu, Y., ***ORTEGA–HERNÁNDEZ, J.**, Zhai, D., and Hou, X.G. 2020. A reduced labrum in a Cambrian great-appendage euarthropod. *Current Biology* 30: 3057-3061 (doi: 10.1016/j.cub.2020.05.085).
- 47.- Liu, Y., ***ORTEGA–HERNÁNDEZ, J.**, Chen, H., Mai, H., Zhai, D., and Hou, X.G. 2020. Computer tomography sheds new light on the affinities of the enigmatic euarthropod *Jianshanian furcatus* from the early Cambrian Chengjiang biota. *BMC Evolutionary Biology* 20: 62 (doi: 10.1186/s12862-020-01625-4).
- 46.- Lerosey-Aubril, R., Kimmig, J., Pates, S., Skabelund, J., Weug, A., and **ORTEGA–HERNÁNDEZ, J.** 2020. New exceptionally preserved panarthropods from the Drumian Wheeler Konservat-Lagerstätte of the House Range of Utah. *Papers in Palaeontology* 6: 501-531 (doi: 10.1002/spp2.1307).
- 45.- Lerosey-Aubril, R., Skabelund, J. and ***ORTEGA–HERNÁNDEZ, J.** 2020. Revision of the mollisoniid chelicerate(?) *Thelxiope*, with a new species from the middle Cambrian Wheeler Formation of Utah. *PeerJ* 8: e8879 (doi: 10.7717/peerj.8879).
- 44.- Liu, Y., Lerosey-Aubril, R., Audou, D., Zhai, D., Huijuan, M. and ***ORTEGA–HERNÁNDEZ, J.** 2020. Occurrence of the eudemersal radiodont *Cambroraster* in the early Cambrian Chengjiang Lagerstätte and the diversity of hurdiid ecomorphotypes. *Geological Magazine* 157: 1200-1206 (doi: 10.1017/S0016756820000187).
- 43.- Mángano, M. G., **ORTEGA–HERNÁNDEZ, J.**, Piñuela, L., García-Ramos, J., Buatois, L. A., and Rodríguez-Tovar, F. J. 2020. Trace fossil evidence for infaunal moulting in a Devonian non-trilobite euarthropod. *Scientific Reports* 10: 5316 (doi: 10.1038/s41598-020-62019-6).
- 42.- ***ORTEGA–HERNÁNDEZ, J.**, Lerosey-Aubril, R. and Pates, S. 2019. Proclivity of nervous system preservation in Cambrian Burgess Shale type deposits. *Proceedings of the Royal Society B* 20192370 (doi: 10.1098/rspb.2019.2370).
- 41.- Lerosey-Aubril, R., and ***ORTEGA–HERNÁNDEZ, J.** 2019. Appendicular anatomy of the artiopod *Emeraldella brutoni* from the middle Cambrian (Drumian) of western Utah. *PeerJ* 7: e7945 (doi: 10.7717/peerj.7945).
- 40.- Chen, X., ***ORTEGA–HERNÁNDEZ, J.**, Wolfe, J.M., Zhai, D., Huijian, M., Hou, X.G., Chen, A., and Liu, Y. 2019. The appendicular morphology of *Sinoburius lunaris* and the evolution of the artiopodan clade Xandarellida (Euarthropoda, early Cambrian) from South China. *BMC Evolutionary Biology* 19: 165 (doi: 10.1186/s12862-019-1491-3).
- 39.- Bicknell, R.D.C., Amati, L., and **ORTEGA–HERNÁNDEZ, J.** 2019. New insights into the evolution of lateral compound eyes in Palaeozoic horseshoe crabs. *Zoological Journal of the Linnean Society* 187: 1061-1077 (doi: 10.1093/zoolinnean/zlz065).
- 38.- ***ORTEGA–HERNÁNDEZ, J.** 2019. Exceptionally preserved Cambrian fossils in the genomic era. In Martín-Durán, J.M., and Vellutini, B. eds. “*Old Questions and Young Approaches to Animal Evolution*”. Fascinating Life Sciences. Springer, Cham. pp. 39-54. (doi: 10.1007/9783-030-18202-1_3).
- 37.- Yang, J., **ORTEGA–HERNÁNDEZ, J.**, Drage, H. B., Du, K.S. and Zhang, X.G. 2019. Ecdysis in a stem-group euarthropod from the early Cambrian of China. *Scientific Reports* 9: 5709 (doi: 10.1038/s41598-019-41911-w).
- 36.- Du, K., **ORTEGA–HERNÁNDEZ, J.**, Yang, J., and Zhang, X.G. 2019. A soft-bodied euarthropod from the Cambrian Xiaoshiba Lagerstätte of China supports a new clade of basal artiopodans with dorsal ecdysial sutures. *Cladistics* 35: 269-281 (doi: 10.1111/cla.12344).
- 35.- Zhu, X.-J., Lerosey-Aubril, R. and **ORTEGA–HERNÁNDEZ, J.** 2019. Occurrence of the aglaspidid arthropod *Beckwithia* in the Furongian Guole Konservat Lagerstätte. *Palaeoworld* 28: 73-79 (doi: 10.1016/j.palwor.2018.04.002).

- 34.- *ORTEGA–HERNÁNDEZ, J., Janssen, R., and Budd, G.E. 2019. The last common ancestor of Ecdysozoa had an adult terminal mouth. *Arthropod Structure and Development* 49: 155-158. (doi: 10.1016/j.asd.2018.11.003)
- 33.- Zhai, D., ORTEGA–HERNÁNDEZ, J., Wolfe, J. M., Hou, X.G., Cao, C.J., and Liu, Y. 2019. Three-dimensionally preserved appendages in an early Cambrian stem-group pancrustacean. *Current Biology* 29: 171-177. (doi: 10.1016/j.cub.2018.11.060).
32. Fu, D., ORTEGA–HERNÁNDEZ, J., Daley, A.C., Zhang, X., and Shu, D. 2018. Anamorphic development and extended parental care in 520 million-year-old stem-group euarthropod from China. *BMC Evolutionary Biology* 18: 147 (doi: 10.1186/s12862-018-1262-6).
- 31.- *ORTEGA–HERNÁNDEZ, J., Yang, J. and Zhang, X.-G. 2018. Fuxianhuiids. *Current Biology* 28 (13): R724-R725 (doi: 10.1016/j.cub.2018.04.042).
- 30.- Lerosey-Aubril, R., Gaines, R., Hegna, T. A., ORTEGA–HERNÁNDEZ, J., Van Roy, P., Kier, C., and Bonino, E. 2018. The Weeks Formation Konservat-Lagerstätte and the evolutionary transition of Cambrian marine life. *Journal of the Geological Society* 175: 705-715 (doi: 10.1144/jgs2018-042).
- 29.- *ORTEGA–HERNÁNDEZ, J., Fu, D., Zhang, X.-L. and Shu, D. 2018. Gut glands illuminate trunk segmentation in Cambrian fuxianhuiids. *Current Biology* 28: R146-R147 (doi: 10.1016/j.cub.2018.01.040).
- 28.- Pates, S., Daley, A. C., and ORTEGA–HERNÁNDEZ, J. 2018. Reply to Comment on “*Aysheaia prolata* from the Wheeler Formation (Cambrian, Drumian) is a frontal appendage of the radiodontan *Stanleycaris*” with the formal description of *Stanleycaris*. *Acta Palaeontologica Polonica* 63: 105-110 (doi: 10.4202/app.00443.2017).
- 27.- Yang, J., ORTEGA–HERNÁNDEZ, J., Legg, D.A., Tian, L., Hou, J.B., and Zhang, X.G. 2018. Early Cambrian fuxianhuiids from China reveal origin of the gnathobasic protopodite in euarthropods. *Nature Communications* 9: 470 (doi: 10.1038/s41467-017-02754-z).
- 26.- Lerosey-Aubril, R., Zhu, X.-J., and ORTEGA–HERNÁNDEZ, J. 2017. The Vicissicaudata revisited – insights from a new aglaspidid arthropod with caudal appendages from the Furongian of China. *Scientific Reports* 7: 11117 (doi: 10.1038/s41598-017-11610-5).
- 25.- Pates S., Daley, A.C., and ORTEGA–HERNÁNDEZ, J. 2017. *Aysheaia prolata* from the Wheeler Formation (Cambrian, Drumian) is a frontal appendage of the radiodontan *Stanleycaris*. *Acta Palaeontologica Polonica* 62: 619-625 (doi: 10.4202/app.00361.2017).
- 24.- ORTEGA–HERNÁNDEZ, J., Azizi, A., Hearing, T.W., Harvey, T.H.P., Edgecombe, G.D. and El Hariri, K. 2017. A xandarellid artiopodan Morocco – a middle Cambrian link between soft-bodied euarthropod communities in North Africa and South China. *Scientific Reports* 7: 42616 (doi: 10.1038/srep42616).
- 23.- *ORTEGA–HERNÁNDEZ, J., Janssen, R. and Budd, G.E. 2017. Origin and evolution of the panarthropod head – a palaeobiological and developmental perspective. *Arthropod Structure and Development* 46: 354-379 (doi: 10.1016/j.asd.2016.10.0011).
- 22.- Yang, J., ORTEGA–HERNÁNDEZ, J., Tian, L., Hou, J.-B., & Zhang, X.-G. 2016. A predatory bivalved euarthropod from the Cambrian (Stage 3) Xiaoshiba Lagerstätte, South China. *Scientific Reports* 6: 27709 (doi: 10.1038/srep27709).
- 21.- *ORTEGA–HERNÁNDEZ, J., Van Roy, P., and Lerosey-Aubril, R. 2016. A new aglaspidid euarthropod with a six-segmented trunk from the Lower Ordovician Fezouata Konservat-Lagerstätte, Morocco. *Geological Magazine* 153: 524-536 (doi: 10.1017/S0016756815000710).

- 20.- Yang, J., **ORTEGA–HERNÁNDEZ, J.**, Butterfield, N.J., Liu, Y., Boyan, G., Tian, L., Hou, J.-B., and Zhang, X.-G. 2016. Fuxianhuiid ventral nerve cord and early nervous system evolution in Panarthropoda. *Proceedings of the National Academy of Sciences* 113: 2988-2993 (doi: 10.1073/pnas.1522434113).
- 19.- ***ORTEGA–HERNÁNDEZ, J.** and Budd, G.E. 2016. The nature of non-appendicular anterior paired projections in Palaeozoic total-group Euarthropoda. *Arthropod Structure & Development* 45: 185-199. (doi: 10.1016/j.asd.2016.01.006).
- 18.- ***ORTEGA–HERNÁNDEZ, J.** 2016. Making sense of “lower” and “upper” stem-group Euarthropoda, with comments on the strict use of the name Arthropoda von Siebold, 1848. *Biological Reviews* 91: 255-273 (doi: 10.1111/brv.12168).
- 17.- ***ORTEGA–HERNÁNDEZ, J.** 2015. Lobopodians. *Current Biology* 25: R873-R875. (doi: 10.1016/j.cub.2015.07.028).
- 16.- Yang, J., ***ORTEGA–HERNÁNDEZ, J.**, Gerber, S., Butterfield, N.J., Hou, J.-B. Tian, L. and Zhang, X.-G. 2015. A superarmored lobopodian from the Cambrian of China and early disparity in the evolution of Onychophora. *Proceedings of the National Academy of Sciences* 112: 8678-8683. (doi: 10.1073/pnas.1505596112).
- 15.- ***ORTEGA–HERNÁNDEZ, J.** 2015. Homology of head sclerites in Burgess Shale euarthropods. *Current Biology* 25: 1625-1631. (doi: 10.1016/j.cub.2015.04.034).
- 14.- ***ORTEGA–HERNÁNDEZ, J.**, Lerosey-Aubril, R., Kier, C. and Bonino, E. 2015. A rare non-trilobite artiopodan from the Guzhangian (Cambrian Series 3) Weeks Formation Konservat-Lagerstätte in Utah, USA. *Palaeontology* 58: 265-276. (doi: 10.1111/pala.12136).
- 13.- Smith, M.R. and **ORTEGA–HERNÁNDEZ, J.** 2014. *Hallucigenia*’s onychophoran-like claws and the case for Tactopoda. *Nature* 514: 363-366. (doi: 10.1038/nature13576).
- 12.- ***ORTEGA–HERNÁNDEZ, J.**, Esteve, J., and Butterfield, N.J. 2013. Humble origins for a successful strategy: complete enrolment in early Cambrian olenellid trilobites. *Biology Letters* 9: 20130679. (doi: 10.1098/rsbl.2013.0679).
- 11.- Yang, J., **ORTEGA–HERNÁNDEZ, J.**, Butterfield, N.J., and Zhang, X.-G. 2013. Specialized appendages in fuxianhuiids and the head organization of early euarthropods. *Nature* 494: 468-471. (doi: 10.1038/nature11874).
- 10.- ***ORTEGA–HERNÁNDEZ, J.**, Legg, D.A., and Braddy, S.J. 2013. The phylogeny of aglaspidid arthropods and the internal relationships within Artiopoda. *Cladistics* 29: 15-45. (doi: 10.1111/j.1096-0031.2012.00413.x).
- 9.- Lerosey-Aubril, R., **ORTEGA–HERNÁNDEZ, J.**, Kier, C., and Bonino, E. 2013. Occurrence of the Ordovician-type aglaspidid *Tremaglaspis* in the Cambrian Weeks Formation (Utah, USA). *Geological Magazine* 150: 945-951. (doi:10.1017/S001675681300037X).
- 8.- Lerosey-Aubril, R., **ORTEGA–HERNÁNDEZ, J.**, and Zhu, X.-J. 2013. The first aglaspidid *sensu stricto* from the Cambrian of China (Sandu Shale, Guangxi). *Geological Magazine* 150: 565-571. (doi: 10.1017/S0016756812001045).
- 7.- Rak, Š., ***ORTEGA–HERNÁNDEZ, J.**, and Legg, D.A. 2013. A revision of the late Ordovician marrellomorph arthropod *Furca bohémica* from Czech Republic. *Acta Palaeontologica Polonica* 58: 615-628. (doi:10.4202/app.2011.0038).
- 6.- Löser, H., García-Barrera, P., Mendoza-Rosales, C.C., and **ORTEGA–HERNÁNDEZ, J.** 2013. Corals from the early Cretaceous (Barremian – early Albian) of Puebla, Mexico: Introduction and Family Stylinidae. *Revista Mexicana de Ciencias Geológicas* 30: 385-403.

- 5.- *ORTEGA–HERNÁNDEZ, J. and Brena, C. 2012. Ancestral patterning of tergite formation in a centipede suggests derived mode of trunk segmentation in trilobites. *PLoS ONE* 7: e52623. (doi: 10.1371/journal.pone.0052623).
- 4.- Harvey, T.H.P., ORTEGA–HERNÁNDEZ, J., Lin, J.-P., Zhao, Y.-L., and Butterfield, N.J. 2012 Burgess Shale-type microfossils from the middle Cambrian Kaili Formation, Guizhou Province, China. *Acta Palaeontologica Polonica* 57: 423-436. (doi: 10.4202/app.2011.0028).
- 3.- Legg, D.A., Ma, X.-Y., Wolfe, J., ORTEGA–HERNÁNDEZ, J., Edgecombe, G.D., and Sutton, M.D. 2011. Lobopodian phylogeny re-analyzed. *Nature* 476 (7359): E1 (11 August 2011). (doi: 10.1038/nature10267).
- 2.- *ORTEGA–HERNÁNDEZ, J., Braddy, S.J., Jago, J.B., and Baillie, P.W. 2010. A new aglaspidid arthropod from the upper Cambrian of Tasmania. *Palaeontology* 53: 1065-1076. (doi: 10.1111/j.1475-4983.2010.00974.x).
- 1.- *ORTEGA–HERNÁNDEZ, J., Braddy, S.J., and Rak, Š. 2010. Trilobite and xiphosuran affinities for the putative aglaspidid arthropods *Caryon* and *Drabovaspis* from the upper Ordovician of the Czech Republic. *Lethaia* 43: 427-431. (doi: 10.1111/j.1502-3931.2010.00216.x).

CONFERENCE CONTRIBUTIONS

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| 2022 | 6 th International Palaeontological Congress at Kohn Kaen, Thailand.
<i>Themed symposium co-organizer</i> |
| 2021 | Geological Society of America Annual Meeting, Portland, USA.
<i>Technical session co-chair</i> |
| 2020 | 64 th Annual Meeting of the Palaeontological Association, Virtual Meeting. |
| 2019 | 63 rd Annual Meeting of the Palaeontological Association, Valencia, Spain. |
| 2019 | 11 th North American Paleontological Congress Riverside, USA.
<i>Themed symposium lead organizer</i> |
| 2018 | International Conference on Ediacaran and Cambrian Sciences, Xi'an, China. |
| 2018 | 14 th International Symposium on Tardigrada, Copenhagen, Denmark. |
| 2018 | IPC5, Fifth International Palaeontological Congress Paris, France.
<i>Technical session co-chair</i> |
| 2017 | 61 th Annual Meeting of the Palaeontological Association, Imperial College London, UK. |
| 2017 | 6 th International Conference on Trilobites and their Relatives, Tallinn, Estonia.
<i>Technical session co-chair</i> |
| 2017 | XV Congreso Nacional de Paleontología, SOMEXPAL, San Luis Potosí, Mexico. |
| 2016 | Neptune Evo Devo Symposium, University of Lisbon, Portugal. |
| 2016 | Euro Evo Devo 2016, Uppsala University, Sweden. |
| 2016 | Palaeo Down Under 2, Adelaide University, Australia. |
| 2015 | 59 th Annual Meeting of the Palaeontological Association, Cardiff University, UK. |
| 2015 | Rise of Animal Life (RALI) 2015, The International Conference, University Cadi Ay Yad, Morocco. |
| 2014 | 58 th Annual Meeting of the Palaeontological Association, University of Leeds, UK. |
| 2014 | IPC4, Fourth International Palaeontological Congress Mendoza, Argentina. |
| 2013 | 57 th Annual Meeting of the Palaeontological Association, University of Zurich. |
| 2013 | GSA Annual Meeting in Denver: 125 th Anniversary of GSA. |
| 2012 | 56 th Annual Meeting of the Palaeontological Association, University College Dublin, Ireland. |
| 2012 | Trilo 2012, the 5 th conference on trilobites and their relatives. Charles University, Czech Republic. |
| 2012 | Guizhou 2012. The 17 th Field Conference of the Cambrian Stage Subdivision Working Group, International Subcommission on Cambrian Stratigraphy & Celebration of the 30th Anniversary of the Discovery of the Kaili Biota. University of Guizhou, China. |

- 2011 55th Annual Meeting of the Palaeontological Association, University of Plymouth, UK.
- 2011 Progressive Palaeontology 2011, University of Leicester, UK.
- 2010 54th Annual Meeting of the Palaeontological Association, University of Ghent, Belgium.
- 2010 IPC3, Third International Palaeontological Congress, Imperial College, UK.
- 2010 Progressive Palaeontology 2010, University of Bristol, UK. Oral presentation.
- 2009 Walcott 2009, An International Conference on the Cambrian Explosion, Canada.
- 2009 Progressive Palaeontology 2009, University of Birmingham, UK.
- 2008 Jangellonian University, 2nd International Congress on Ichnology, University of Krakow, Poland.
- 2008 Universidad Autónoma de Nuevo León, II Simposio Geocientífico Internacional, México.
- 2008 8th International Congress on Rudists, Dokuz Eylul University, Turkey.

Invited talks

- 2022 Paleo Lunch Seminar, University of Washington, USA.
- 2021 Department of Molecular and Cell Biology, Harvard University, USA.
- 2021 Geological Society of America Annual Meeting, Portland, USA.
- 2021 Biology Colloquium, New Jersey Institute of Technology and Rutgers University, USA.
- 2021 Palaeobiology Research Group, University of Bristol, UK.
- 2021 Departments of Biology and Geology seminar, University of Saskatchewan, Canada.
- 2021 Paleontology Symposium, Smithsonian National Museum of Natural History, USA.
- 2020 Department of Earth Sciences seminar, Uppsala University, Sweden.
- 2020 Fall Seminar Series, Hopkins Marine Station, Stanford University, USA.
- 2020 Department of Biology, University of North Florida, USA.
- 2020 Chemical Oceanography, Geology, Geochemistry and Geobiology group, MIT, USA.
- 2020 Evolution Matters Lecture Series, Harvard Museum of Natural History, USA.
- 2019 11th North American Paleontological Congress, Riverside, USA.
- 2018 The Emergence of Complex Animal Life, University of Oxford, UK.
- 2018 International Conference on Ediacaran and Cambrian Sciences, Northwest University, China. Keynote speaker.
- 2018 Department seminar, Department of Zoology, University of Cambridge, UK.
- 2018 Department seminar, School of Biological Sciences, University of Adelaide, Australia
- 2018 Institute of Earth Sciences, University of Lausanne, Switzerland.
- 2017 Department of Geology, Ghent University, Belgium.
- 2017 International Workshop on Evolution of Cambrian Arthropods – Taxonomy, Ontogeny and Phylogeny, Northwest University of China, Xian, China.
- 2017 SICB Annual Meeting 2017, New Orleans, USA.
- 2016 150th Anniversary of the Department of Zoology, University of Cambridge, UK.
- 2016 Fellow's talk, Emmanuel College, University of Cambridge, UK.
- 2016 Isotope coffee. Department of Earth Sciences, University of Cambridge, UK.
- 2016 Cambridgeshire Geological Club, Cambridge, UK.
- 2016 Candidate talk, Department of Earth Sciences, University of Oxford, UK.
- 2016 Departments of Earth and Planetary Sciences / Organismic and Evolutionary Biology Faculty Candidate Talk, Harvard University, USA.
- 2016 Palaeobiology Discussion Group, School of Earth Sciences, University of Bristol, UK.
- 2016 Department of Earth Sciences, University of Cambridge, UK.
- 2015 Oxford Geology Group seminar, BP Technology Centre, Whitchurch on Thames, UK.
- 2014 Symposium. Fossil arthropods as living organisms. IPC4, Fourth International Palaeontological Congress, Argentina.
- 2012 Laboratory seminar. Key Laboratory for Palaeobiology, Yunnan University, China.
- 2012 Department seminar, Natural History Museum, London, UK.

2011	Laboratory seminar. Laboratory for Development and Evolution, Department of Zoology, University of Cambridge, UK.
2010	Chelicerate Workshop, IPC3, Third International Palaeontological Congress, Imperial College London, UK.

TEACHING AT HARVARD UNIVERSITY

Year	Course	Class Roster	Mean Q Scores Course/Instructor	Notes
2022	Fall Semester COVID-19 teaching relief	N/A	N/A	N/A
2022	OEB/EPS 56: Geobiology and the History of Life	TBC	TBC	N/A
2021	FRSEMR 52L: Life and Death lessons from the fossil record	11	4.3 / 4.8	New course
2021	OEB 150: Exceptional paleobiological insights into animal evolution	4	N/A	Remote
2020	OEB 213: Evolutionary convergence, mass extinctions and the shape of life	3	N/A	Remote
2020	OEB 150: Exceptional paleobiological insights into animal evolution	5	N/A	New course
2019	OEB 213: Evolutionary convergence, mass extinctions and the shape of life	11	4.57 / 4.83	New course

INTERNAL ACADEMIC AND ADMINISTRATIVE SERVICE

2021	Graduate admissions committee (OEB).
2021	Search committee for Malacology Curatorial Associate (MCZ).
2020	Graduate admissions committee (OEB).
2020	Selection committee for E. O. Wilson Biodiversity Postdoctoral Fellowship (MCZ).
2020	Selection committee for Ernst Mayr Travel Grant (MCZ).
2021	Putnam Expedition Grant reviewer (MCZ).
2020	Milton Fund reviewer (Harvard).
2019	Graduate admissions committee (OEB).
2019	Selection committee for E. O. Wilson Biodiversity Postdoctoral Fellowship (MCZ).
2019	Selection committee for Ernst Mayr Travel Grant (MCZ).
2019	Paleontology Collections Open House, Museum of Comparative Zoology (MCZ).

EXTERNAL ACADEMIC AND ADMINISTRATIVE SERVICE

2022	Co-leader of themed symposium at the “6 th International Palaeontological Congress” at Kohn Kaen, Thailand.
2021	NSF CAREER Panel Service, Sedimentary Geology and Paleobiology.
2021	Research grant referee for the Palaeontological Association (UK).
2021	NSF EAR Postdoctoral Fellowship Reviewer.
2020	Paleontological Society (USA) Mentors in Paleontology Careers Event.
2020	Student mentor for Paleontological Society Student Ambassador Program (USA).
2020	Research grant referee for the European Research Council.
2020	Research grant referee for the Palaeontological Association (UK).
2020-	Héctor Arturo Noriega Ruiz, PhD External Committee Member – Universidad de Sonora, Mexico.
2019	Lorenzo Lustri, PhD External Committee Member – University of Lausanne, Switzerland.

- 2019 Organizer of themed symposium at the “11th North American Paleontological Convention”, University of California Riverside, USA.
- 2018 Invited commissioning editor of palaeontological contributions for Geological Magazine 155th Anniversary Special Issue.
- 2017 Member of scientific committee at the 6th International Conference on Trilobites and their Relatives held in Tallinn, Estonia.
- 2017 Research grant referee for the Palaeontological Association (UK).
- 2016 Chair of contributed session Palaeobiology and deep time, at Euro Evo Devo Uppsala 2016.
- 2014 Co-chair of the open session Lower Palaeozoic faunas, at the Fourth International Palaeontological Congress Mendoza, Argentina.
- 2012 Chairman of the conference Progressive Palaeontology Cambridge 2012, UK.
- 2011 Freelance graphic designer for the Sedgwick Museum of Earth Sciences, University of Cambridge (UK).

Peer review duty – 74 manuscripts reviewed since 2011

Acta Paleontologica Polonica; Arthropod Structure and Development; Biological Reviews; BMC Evolutionary Biology; Bulletin of Geosciences; Communications Biology; Current Biology; Earth and Planetary Science Letters; EvoDevo; Geological Magazine; Gondwana Research; Integrative and Comparative Biology; Invertebrate Biology; Journal of Paleontology; Journal of Systematic Palaeontology; Journal of the Geological Society; Palaeontology; Palaentologia Electronica; Papers in Palaeontology; Palaios; PeerJ; Philosophical Transactions of the Royal Society B; Plos One; Proceedings of the National Academy of Sciences; Proceedings of the Royal Society B; Nature; Nature Communications; Nature Ecology and Evolution; Naturwissenschaften; Science Advances; Science Bulletin; Scientific Reports; Royal Society Open Science; Zoological Letters.

DIVERSITY, INCLUSION AND BELONGING ACTIVITIES

- 2021 Volunteer mentor during Geological Society of America Annual meeting in Portland.
- 2021- Member of the Palaeontological Association (UK) mentoring scheme.

OUTREACH PUBLICATIONS

- 11.- **ORTEGA–HERNÁNDEZ, J.** 2018. La Explosión del Cámbrico y el origen de la biosfera moderna. *La Jornada de Oriente* 77: 8.
- 10.- **ORTEGA–HERNÁNDEZ, J.** 2017. What is the point of phylogenies? *In* 52 Things you should know about palaeontology.
- 9.- **ORTEGA–HERNÁNDEZ, J.** and Smith, M. R. 2016. The enigmatic lobopodian *Hallucigenia* and the origin of velvet worms. *Fundamental* 29: 1-46.
- 8.- **ORTEGA–HERNÁNDEZ, J.** 2012. Review: Penney D. and Selden P. A. (2011) Fossils spiders: The evolutionary history of a mega-diverse order. Siri Scientific Press. 128 pp. *Palaeontological Association Newsletter* 81: 80-82.
- 7.- **ORTEGA–HERNÁNDEZ, J.** and Crumpton. N. 2012. Progressive Palaeontology Cambridge 2012: meeting summary. *Palaeontological Association Newsletter* 81: 48-50.
- 6.- **ORTEGA–HERNÁNDEZ, J.** 2012. Patterns in Palaeontology: Parsimony and palaeobiology. *Palaeontology [online]* 2 (4): 1-10. Available online at www.palaeontologyonline.com
- 5.- **ORTEGA–HERNÁNDEZ, J.** 2011. Fossils Explained: Rudists. *Geology Today* 27 (2): 74-77 (doi: 10.1111/j.1365-2451.2011.00790.x).
- 4.- **ORTEGA–HERNÁNDEZ, J.,** Legg, D. A., Tremewan, J. S. and Braddy, S. J. 2010. Fossils Explained: Euthycarcinoids. *Geology Today* 26 (5): 195-198 (doi: 10.1111/j.1365-2451.2010.00770.x).

- 3.- **ORTEGA–HERNÁNDEZ, J.** 2009. Urban fossil hunting. *Rockwatch Magazine* 52: 8-9.
- 2.- **ORTEGA–HERNÁNDEZ, J.** 2009. Misplaced trace fossils in unlikely environments. *Geology Today* 25 (2): 71-74 (doi: 1111/j.1365-2451.2009.00710.x).
- 1.- **ORTEGA–HERNÁNDEZ, J.** 2008. Fossil discovered in Robledos gets mythical moniker. *Las Cruces Bulletin* 12/05/2008, page A8.

OTHER OUTREACH ACTIVITIES

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| 2019 | Prof-talks Online Podcast. Using Fossils to Understand the Evolution of Animals.
https://prof-talks.com/2019/06/11/javier-ortega/ |
| 2015 | Palaeocast Palaeontology Podcast. Episode 47: Lobopodians.
http://www.palaeocast.com/episode-47-lobopodians/ |

COMPLEMENTARY TRAINING

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| 2018 | European Molecular Biology Organization Laboratory Management Course. |
| 2011 | Department of Zoology, University of Cambridge, UK
Visiting researcher (six months) at the Laboratory for Development and Evolution. |