

PERSONAL INFORMATION

Family name, First name: Incarbona Alessandro

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BIBLIOMETRIC INDICATORS (source SCOPUS, ID 6508021540,

<https://www.scopus.com/authid/detail.uri?authorId=6508021540#tab=metrics>) at 07/10/2026

Peer-reviewed articles: 66

Citations: 1671

H-index: 25

RESEARCH ACTIVITY

My research activity deals with coccolithophore assemblages used for paleoenvironmental and paleoceanographic reconstructions, mainly in late Quaternary sediments of Mediterranean Sea and Atlantic Ocean. A special focus of my research is reserved to organic-rich (sapropel) layers accumulated in the eastern Mediterranean seafloor during Green Sahara periods and on ocean acidification. The Holocene, including historical times and pre- and post-industrial ages, has also been attracting my attention, mainly in terms of evolution of thermohaline circulation modes and evolution of calcareous plankton assemblages in the Mediterranean Sea. I'm also able to manage and interpret inorganic and organic geochemical data for paleoceanographic reconstructions and for international initiatives, like for the PAGES Iso2k effort.

EDUCATION AND TRAINING

March 2007 PhD in Geology (XVIII Cycle), University of Palermo. Dissertation title: Paleocceanografia del Canale di Sicilia (Mediterraneo centrale) durante gli ultimi 350 mila anni, rivelata dalle associazioni a nannofossili calcarei.

02/07/2008 to 02/07/2012 Postdoc fellowship, University of Palermo. Title: Analisi micropaleontologiche basate su nannofossili calcarei, con finalità ecobiostratigrafica e paleoecologica, dei sedimenti neogenici del settore centrale mediterraneo.

Paleoceanography: theory and field evidence, an indoor and field seminar in learning and discussing. September 25 – October 2, 2003, Naples, Italy.

The Urbino Summer School in Paleoclimatology. The Cenozoic Record of Paleoclimate Change: Reconstruction & modelling Techniques. July 25-August 5, 2005 – Urbino, Italy.

ACADEMIC POSITION AND DUTIES

September 2019–ong Associate Professor - GEO/01 (Paleontology and Paleoecology), University of Palermo, Department of Earth and Marine Sciences, Palermo, Italy.

2021-2023 Deputy coordinator of Consiglio Interclasse di Scienze della Terra, L-34 Scienze Geologiche e LM-74 Georischi e Georisorse.

2023-2026 Coordinator of Consiglio Interclasse di Scienze della Terra, L-34R Scienze Geologiche e LM-74R Georischi e Georisorse.

December 2022-ong Director of the G.G. Gemmellaro Museum.

PREVIOUS POSITIONS

1/9/2016 to 30/8/2019 Researcher type B – GEO/01 (Paleontology and Paleoecology), University of Palermo, Department of Earth and Marine Sciences, Palermo, Italy.

16/12/2012 to 15/12/2015 Researcher type A – GEO/01 (Paleontology and Paleoecology), University of Palermo, Department of Earth and Marine Sciences, Palermo, Italy.

TEACHING

Lecturer of over 10 academic courses since 2014 (i.e. Paleontology, Paleocceanography and Paleoclimatology).

AWARDS AND RECOGNITIONS

The paper 'Pallacks, S., Ziveri, P., Martrat, B., Mortyn, P. G., Grelaud, M., Schiebel, R., Incarbona, A., Garcia-Orellana, J. and Anglada-Ortiz, G. (2021) Planktic foraminiferal changes in the western Mediterranean Anthropocene. Global and Planetary Change 204 (103549). <https://doi.org/10.1016/j.gloplacha.2021.103549>' has been selected by the 'Science for Environment Policy' newsletter of the European Commission to be delivered to more than 20,000 thousand policy makers, businessmen and academics.

Invited talk

'Response of Calcareous Nannofossils to Late Quaternary Orbital and Suborbital Climate Changes: Evidence from Central Mediterranean and Iberian Margin Records'. *Geoitalia 2009, VII Forum Italiano di Scienze della Terra*. Rimini, 9-11 Settembre 2009. Sessione Clima e Paleoclima, Il sistema climatico e le sue perturbazioni durante il Pleistocene: evidenze biologiche, chimiche e fisiche nel record sedimentario marino (N11).

SELECTED NATIONAL AND INTERNATIONAL PROJECTS

2022-2023 PO FESR Sicilia 2014-2020, obiettivo specifico 6.7, azione 6.7.2 'Le pietre nel percorso Arabo-Normanno. Gli elefanti nani e la prima donna di Sicilia: benvenuti sulla macchina del tempo'.

2022-2023 PO FESR Sicilia 2014-2020, Azione 6.7.1 'IL PATRIMONIO GEOPALEONTOLOGICO SICILIANO, TUTELA, SALVAGUARDIA E FRUIZIONE'.

Past Global Change (PAGES) project, Initiative 'Iso2k - A global synthesis of Common Era hydroclimate using water isotopes', Phase 3, 2017-2020 (<http://pastglobalchanges.org/ini/wg/2k-network/projects/iso2k>).

2010-2013 'Unione Europea, Settimo Programma Quadro (FP7)', 'Mediterranean Sea Acidification under changing climate (MedSeA)'.

PRIN 2012 (coordinato dalla Professoressa A. Di Stefano): 'Il "GSSP" (Global Stratigraphic Section and Point) del Piano Burdigaliano: il tassello mancante all'intervallo Neogenico della Scala del Tempo Geologico'.

PRIN 2006 (coordinato dal Prof. F. Massari): La transizione climatica tra Pliocene Medio e Pliocene Superiore: una prospettiva Mediterranea.

PRIN 2004 (coordinato dal Prof. R. Sprovieri): Ricostruzione ad alta risoluzione dell'evoluzione Paleoclimatica, Paleocceanografica ed Eco-Biostratigrafica del Bacino Mediterraneo nel Tardo Quaternario (0-450 ky BP) in base all'analisi di traccianti faunistici, floristici, chimici e isotopici.

Finanziamento delle Attività Base di Ricerca (FFABR) anno 2017, PJ_RIC_FFABR_2017_161560.

EDITORIAL TASKS

2021-ong Editor of Plos One (<https://journals.plos.org/plosone/static/editorial-board>).

2022-ong Review Editor for Marine Geoscience of Frontiers in Earth Science (<https://loop.frontiersin.org/people/1820411/overview>).

PEER REVIEWER ACTIVITY

Nature Communications, Nature Publishing Group.

Nature Geoscience, Nature Publishing Group.

Nature Reviews Earth & Environment, Nature Publishing Group.

Scientific Reports, Nature Publishing Group.

Journal of Marine Systems, GeoResJ, Marine Micropaleontology, Palaeogeography Palaeoclimatology Palaeoecology, Quaternary Science Reviews e Global and Planetary Change, Elsevier.

Paleoceanography, American Geophysical Union.

Paleoceanography and Paleoclimatology, American Geophysical Union.

Climate of the Past, EGU Journals, Copernicus Publications.

Quaternary Research, Cambridge University Press

Journal of Plankton Research, Oxford University Press.

Geo-Marine Letters, Central European Journal of Geosciences e Hydrobiologia, Springer Verlag.

Plos One, Public Library of Science.

Journal of Maps, Taylor and Francis Online.

Geologica Acta, Publisher: University of Barcelona and the Institute of Earth Sciences 'Jaume Almera' (C.S.I.C., Barcelona).

Revista Brasileira de Paleontologia, Sociedade Brasileira de Paleontologia.

Journal of Geography and Natural Disaster, OMICS Publishing Group.

Alpine and Mediterranean Quaternary, Associazione Italiana per lo Studio del Quaternario.

MEMBERSHIP OF SCIENTIFIC SOCIETIES

2007-2011 'International Nannoplankton Association (INA)'.

2011-2014 'Consorzio Nazionale Interuniversitario per le Scienze del Mare (CoNISMa)'.

FIELD EXPEDITIONS AND PROPOSALS

'Integrated Ocean Drilling Program (IODP)' approved proposal on 'Correlation of Marine, Ice-core and Terrestrial records by IODP drilling of the "Shackleton Sites" on the Iberian Margin', (https://docs.iodp.org/Proposal_Cover_Sheets/771-Full2_Hodell_cover.pdf).

"Bansic 06" (4-11 August 2006), Sicily Channel, in collaboration with IAMC-CNR.

"MEDOC08" (3-24 November 2008), Ionian Sea, Sicily Channel, Algerian Basin, Tyrrhenian Sea, Sardinia Channel, Alboran Sea and Gibraltar Strait. In collaboration with CNR IAMC and ISMAR, INGV, ENEA, University of Florence and University of Messina.

LANGUAGE

Italian: mother tongue; English fluent.

SOFTWARE

Paleontological Statistics (PAST); Ocean Data View; Office suite; Grapher; Windows, Mac, Linux.

SELECTED PUBLICATIONS OF THE LAST 5 YEARS

Capraro, L., Bonomo, S., Incarbona, A., Hilgen, F.J., Zanola, E., Di Stefano, A., Dela Pierre, F., Ferraro, S., Ferretti, P., Fornaciari, E., Galeotti, S., Macri, P., Negri, A., Raffi, I., Rodrigues, T., Speranza, F., Spiering, B.R., Tesel, T., Triantaphyllou, M.V., Turco, E., Vai, G.B., Di Stefano, E., Sprovieri, R., Rio, D., 2026. Monte San Nicola (Sicily): Gelasian GSSP and base Quaternary/Pleistocene, Quaternary Science Reviews, 109885, <https://doi.org/10.1016/j.quascirev.2026.109885>.

Lucas, A., Pallacks, S., Incarbona, A., Mortyn, P.G., Ziveri, P., 2026. Tropicalization and biodiversity restructuring of calcifying plankton in a rapidly warming Mediterranean Sea. Global and Planetary Change, 259, 105314.

Bonomo, S., Zanola, E., Incarbona, A., Di Stefano, A., Distefano, S., Barbagallo, V., Ferretti, P., Fornaciari, E., Macri, P., Raffi, I., Sabatino, N., Speranza, F., Sprovieri, M., Di Stefano, E., Sprovieri, R., Rio, D., Capraro, L., 2024. Calcareous Nannofossil variability controlled by Milankovitch and sub-Milankovitch periodicity in the Monte San Nicola section (Gelasian GSSP / MIS 100–104). Mar. Micropaleontol. 192. <https://doi.org/10.1016/j.marmicro.2024.102397>

- Zanola, E., Bonomo, S., Incarbona, A., Di Stefano, A., Distefano, S., Ferretti, P., Fornaciari, E., Galeotti, S., Macrì, P., Raffi, I., Sabatino, N., Speranza, F., Sprovieri, M., Di Stefano, E., Sprovieri, R., Rio, D., Capraro, L., 2024. High-resolution climate variability across the Piacenzian/Gelasian boundary in the Monte San Nicola section (Sicily, Italy). *Quat. Sci. Rev.* 324, 108469. <https://doi.org/10.1016/J.QUASCIREV.2023.108469>
- Zanola, E., Rodrigues, T., Bonomo, S., Ferretti, P., Fornaciari, E., Di Stefano, A., Incarbona, A., Preto, N., Raffi, I., Capraro, L., 2024. Orbital and suborbital temperature variability in the central Mediterranean across the Pliocene/Pleistocene transition. *PLoS One* 19. <https://doi.org/10.1371/journal.pone.0310684>
- Ziveri, P., Gray, W. R., Anglada-Ortiz, G., Manno, C., Grelaud, M., Incarbona, A., Rae, J. W. B., Subhas, A. V., Pallacks, S., White, A., Adkins, J. F., & Berelson, W. (2023). Pelagic calcium carbonate production and shallow dissolution in the North Pacific Ocean. *Nature Communications*, 14(1), 805. <https://doi.org/10.1038/s41467-023-36177-w>
- Incarbona, A., Bonomo, S., Cacho, I., Lirer, F., Margaritelli, G., Pecoraro, D., & Ziveri, P. (2023). Solar forcing for nutricline depth variability inferred by coccoliths in the pre-industrial northwestern Mediterranean. *Global and Planetary Change*, 224, 104102. <https://doi.org/https://doi.org/10.1016/j.gloplacha.2023.104102>
- Capraro, L., Incarbona, A., Fornaciari, E., Sabatino, N., Scaillet, S., Sprovieri, R., Sprovieri, M., 2023. Hydroclimate variability in the central Mediterranean during MIS 17 interglacial (Middle Pleistocene) highlights timing offset with monsoon activity. *Sci. Reports* 2023 131 13, 18938-. <https://doi.org/10.1038/s41598-023-45812-x>
- Ferraro, S., Incarbona, A., Bonomo, S., Capotondi, L., Giaramita, L., Langone, L., Preto, N., Surdi, G., Zanola, E., & Tranchida, G. (2024). Planktonic foraminifera response to the azores high and industrial-era global warming in the central-western Mediterranean Sea. *Global and Planetary Change*, 240, 104532. <https://doi.org/https://doi.org/10.1016/j.gloplacha.2024.104532>
- Pucci, S., Avellone, G., Contino, A., Incarbona, A., Sagnotti, L., Sulli, A., Di Stefano, E., Smedile, A., Gueli, A. M., & Stella, G. (2023). Geology of the lower Belice River valley, epicentral area of the M > 5 1968 seismic sequence (south-western Sicily, Italy). *Journal of Maps*, 19(1), 2242725. <https://doi.org/10.1080/17445647.2023.2242725>
- Incarbona, A., Marino, G., Di Stefano, E., Grelaud, M., Pelosi, N., Rodríguez-Sanz, L., & Rohling, E. J. (2022). Middle-Late Pleistocene Eastern Mediterranean nutricline depth and coccolith preservation linked to Monsoon activity and Atlantic Meridional Overturning Circulation. *Global and Planetary Change*, 103946. <https://doi.org/https://doi.org/10.1016/j.gloplacha.2022.103946>
- Di Donato, V., Sgarrella, F., Sprovieri, R., Di Stefano, E., Martín-Fernández, J. A., & Incarbona, A. (2022). High-frequency modification of the central Mediterranean seafloor environment over the last 74 ka. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 593, 110924. <https://doi.org/https://doi.org/10.1016/j.palaeo.2022.110924>
- Capraro, L., Bonomo, S., Di Stefano, A., Ferretti, P., Fornaciari, E., Galeotti, S., Incarbona, A., Macrì, P., Raffi, I., Sabatino, N., Speranza, F., Sprovieri, M., Di Stefano, E., Sprovieri, R., & Rio, D. (2022). The Monte San Nicola section (Sicily) revisited: A potential unit-stratotype of the Gelasian Stage. *Quaternary Science Reviews*, 278, 107367. <https://doi.org/https://doi.org/10.1016/j.quascirev.2021.107367>
- D'Arpa, C., & Incarbona, A. (2022). Paleoenvironmental Reconstruction on Late Calabrian Stage Sediments from the Belice Valley (Southwestern Sicily - Italy) Based on Ostracoda. *Alpine and Mediterranean Quaternary* 35 (1): 69-83. <https://doi.org/10.26382/AMQ.2022.04>
- Pallacks, S., Ziveri, P., Martrat, B., Mortyn, P. G., Grelaud, M., Schiebel, R., Incarbona, A., Garcia-Orellana, J., & Anglada-Ortiz, G. (2021). Planktic foraminiferal changes in the western Mediterranean Anthropocene. *Global and Planetary Change*, 204, 103549. <https://doi.org/https://doi.org/10.1016/j.gloplacha.2021.103549>
- Cortina-Guerra, A., Gomez-Navarro, J. J., Martrat, B., Montávez, J. P., Incarbona, A., Grimalt, J. O., Sicre, M.-A., & Mortyn, P. G. (2021). Northern Hemisphere atmospheric pattern enhancing Eastern Mediterranean Transient-type events during the past 1000 years. *Climate of the Past*, 17(4), 1523–1532. <https://doi.org/10.5194/cp-17-1523-2021>