

Tea Kolar-Jurkovšek elected as Honorary Fellow of the Geological Society of America

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The Geological Society of America (GSA), founded in 1888, is a nonprofit organization dedicated to the advancement of geosciences. It is headquartered in Boulder, Colorado, USA, and its membership has up to today grown to some ten thousand members. The main mission of GSA is to advance geoscience research and service to society by improving the professional growth of geoscientists thorough programs at all career levels. Publishing of scientific literature among others includes peer-reviewed journals Geological Society of America Bulletin, and Geology, as well as science magazine GSA Today.

GSA key activities are linked with sponsoring scientific meetings, of which organizing the annual meetings are of utmost importance. At the occasion of the Annual meeting Connects 2024 in Anaheim, California, in September several honors and awards have been presented, among them four new recipients of the GSA Honorary Fellowship. This award is intended for non-North American geoscientists with distinguished original scientific research and internationally recognized contributions to science.

Below is Citation for GSA International Honorary Fellow – Dr. Tea Kolar-Jurkovšek.

It is a privilege and honor to award to Dr. Tea Kolar-Jurkovšek an Honorary Fellowship of the

Geological Society of America, for her very substantial scientific contributions over four decades.

Tea Kolar-Jurkovšek is a scientific advisor at the Geological Survey of Slovenia, a geologist/biostratigrapher, and a leader in the study of Paleozoic and Triassic conodonts (biostratigraphically important microfossils) and geology of the European Dinarides. Her extensive field studies have resulted in many works on biostratigraphy, paleontology, and paleogeography.

After graduate study at Ljubljana University and the University of Belgrade, she has been employed as a researcher and program leader at the Geological Survey of Slovenia. Tea actively collaborates in other scientific institutions, as member of the editorial board of a journal and as member of the IUGS International Commission on Triassic Stratigraphy, actively participating in several working groups.

Her work has focused on paleontology and biostratigraphy of Devonian, Carboniferous, Permian, but mainly Triassic, geology and conodonts of Slovenia and the wider Dinarides region. Her studies include the definition of boundary stratotypes, stratigraphic correlations, geological mapping, mineral resource prospecting and tectonic studies of the region. Her achievements include work on the Permian/Triassic boundary, faunal zonation

and paleogeographic studies within the Triassic, and significant taxonomic advances. During the last forty years, her professional contributions include over 400 published works; she is among the most productive researchers at the Geological Survey of Slovenia, and in Europe.

She collaborates with numerous leading international experts and has taken part in international projects to solve biostratigraphic and paleogeographic issues in, for example, Romania, Oman, Kurdistan, China-Tibet, and she has trained master and doctoral students.

Together with her geologist/husband Bogdan, she recently authored the monographs: "Conodonts of Slovenia" (bilingual Slovene and English; 259 pp., 44 plates), "Fossils of Slovenia" (bilingual, 264 pp., 33 plates) and the comprehensive, well-illustrated book on the classic Slovenian Karst region: "Geology of Kras" (also bilingual; 205 pp. 48 plates). These books, issued by Geological Survey of Slovenia and supplemented by original art illustrations, some by daughter Barbara, show her commitment to transfer her work to the general public. She also has organized exhibitions to highlight the value of fossils as part of the natural heritage.

Using conodonts as the leading fossil group Dr. Kolar-Jurkovšek has solved geologic problems and revised the ages of certain formations. She documented conodont faunas from the Alps in Slovenia and in the Dinarides. She has assisted many geological surveys of the region, providing stratigraphic age assignments based on conodonts and solving important stratigraphical questions. Her notable achievements during her career include the recognition of several late Paleozoic conodont faunas and the introduction of Triassic conodont zonation of the area with documented difference with the standard zonation, distinguishing 34 conodont zones and two subzones. The Early Triassic zonation was recognized only more recently, of which some zones (late Griesbachian, Dienerian and Smithian) are based on euryhaline taxa, and their use is confirmed to be an important regional biostratigraphic tool for the shallow shelf environments of the western Tethys (Kolar-Jurkovšek

and Jurkovšek, 2015, 2019). The Middle and Late Triassic conodont zonation mainly corresponds to the standard zonation with the exception of two faunas that usually appear as monospecific fauna, i.e. the Ladinian *Pseudofurnishius murcianus* Zone designating the Sephardic province, and the *Nicoraella? budaensis* Zone that is an important regional marker indicating the stressful conditions of the Carnian Pluvial Event. Moreover, she introduced the concept of multielement apparatus taxonomy in the region and made comprehensive taxonomic revisions to some Triassic conodont genera. More recently, her ongoing study, together with colleagues, is focused on a remarkable fossil record of *Pseudofurnishius murcianus* clusters in the Triassic of Slovenia and Bosnia that is largely based on the application of novel tomographic techniques.

Her work on the Permian-Triassic Boundary (PTB) is also remarkable. During the last two decades, in the areas of former Yugoslavia, she conducted extensive research of the PTB and Lower Triassic strata, enhanced with detailed sampling that revealed the recovery of *Hindeodus parvus*, the marker of basal Triassic. The Lukač section in Slovenia with an excellent successive conodont record is the standard section to define the PTB in the entire Dinarides according to international standards and the site has been added to a list of new natural value of national significance. Likewise, the Teočak section in Bosnia and Herzegovina that includes the PTB as well as the Induan-Olenekian Boundary strata with relatively large set of paleontological data represents an important contribution due to its relevance to the paleogeography of Western Tethys.

In summary, Tea Kolar-Jurkovšek has been one of the most productive and influential geologist researchers in her country, establishing a network of researchers, international scientific exchanges and student supervisions. For those reasons, and close to her retirement, we honestly consider that Tea Kolar-Jurkovšek deserves the recognition for a lifetime of achievements in diverse studies of regional geology and palaeontology, and applying their relevance to society, and to be recognized as an Honorary Fellow of the GSA.