# 14th INTER RAD ANTALYA 2015

an International Conference on Fossil and Recent Radiolarians

22-26 March 2015

## FIRST CIRCULAR

Hacettepe University

Chamber of Geological Engineers of Turkey

General Directorate of Mineral Research And Exploration

Turkish Association of Petroleum Geologists

TÜRKİYE PETROLLERİ ANONİM ORTAKLIĞI
TURKISH PETROLEUM CORPORATION

Dear Colleagues,

The Organizing Committee of International Association of Radiolarists, would like to invite all related scientists to attend the "14th INTERRAD, an International Conference on Fossil and Recent Radiolarians", which will be held from March 22 to 26 2015 in the city of Antalya, Turkey.

A series of scientific sessions including plenary and special sessions, in addition to pre-, mid- and post-conference field excursions will be organized. Well-exposed radiolarian bearing successions in central, western and southern Turkey in addition to some archeological sites can be visited during these field excursions. Furthermore, social events and programs will also be arranged. This meeting will provide a good venue to share new advances on radiolarians and related topics.

The 14th INTERRAD in 2015 will be based at Hacettepe University and hosted by the INTERRAD and partner organizations.

We are looking forward to seeing you in Antalya,

Yours sincerely,

U. Kagan TEKIN
President of INTERRAD

14th INTERRAD ANTALYA 2015

**Important Dates**

abstract submission
**November 1, 2014**

abstract acceptance
**December 15, 2014**

early registration deadline
**January 15, 2015**

program announcement
**February 1, 2015**

## Host

Hacettepe University, Department of Geological Engineering, Ankara, Turkey

## Supporting Institutions

Chamber of Geological Engineers of Turkey
General Directorate of Mineral Research And Exploration
Turkish Association of Petroleum Geologists
Turkish Petroleum Corporation

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Valentina Vishnevskaya - Russian Academy of Sciences, Moscow, Russia

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## Antalya

Antalya is a city on the Mediterranean coast of southwestern Turkey. It is Turkey's biggest international sea resort, located on the Turkish Riviera. In 2011 the city had a population of 964,886 and the metropolitan municipality 1,041,972.

Antalya was the world's fourth most visited city by number of international arrivals in 2011, with 10,5 million annual visitors. Direct flights to Antalya International Airport are available from many cities in Europe. Furthermore, the major airlines company including Turkish Airlines have international connecting flights via Istanbul Ataturk and Sabiha Gökçen Airports. Domestic Airlines provide the connections to the city of Antalya.

## Venue; Crowne Plaza Antalya

The Crowne Plaza Antalya is the hottest new hotel to open in the city of Antalya in 2009. As a member of InterContinental Hotels chain, Crowne Plaza Antalya is specially designed to provide travellers with excellent accommodation, high-quality hotel facilities, and services during their stay in Antalya.

**DISTANCES**
City Centre : 5km,
Antalya Airport : 21km,
Olympos : 60km,
Aspendos : 75km.

**Single Room 72.-Euro**
**Double Room 90.-Euro**

## Tentative Program

| Calendar | Time | Events |
|---|---|---|
| March 22, 2015, Sunday | Whole Day | Arrival and registration for congress at Crown Plaza Hotel, Antalya |
| | Evening | Icebreaking Party |
| March 23, 2015, Monday | Morning | Opening ceremony and oral presentations |
| | Afternoon | Oral presentations, poster session and Paleozoic Working Group session |
| March 24, 2015, Tuesday | Morning | Oral presentations |
| | Afternoon | Oral presentations, poster session and Mesozoic Working Group session |
| March 25, 2015, Wednesday | Morning | Mid-Conference Excursion |
| | Afternoon | Visiting the Aspendos Antique Theatre |
| | Evening | Special Event |
| March 26, 2015, Thursday | Morning | Oral presentations |
| | Afternoon | Oral presentations, poster session and Cenozoic Working Group session |
| | Evening | Farewell Dinner |
| March 27, 2015, Friday | Morning | Check out at Hotel and beginning of the Post-Conference field trip |

## Sessions

**INTERRAD 2015 now receiving special session proposals and abstract submissions online at www.interrad2015.org**

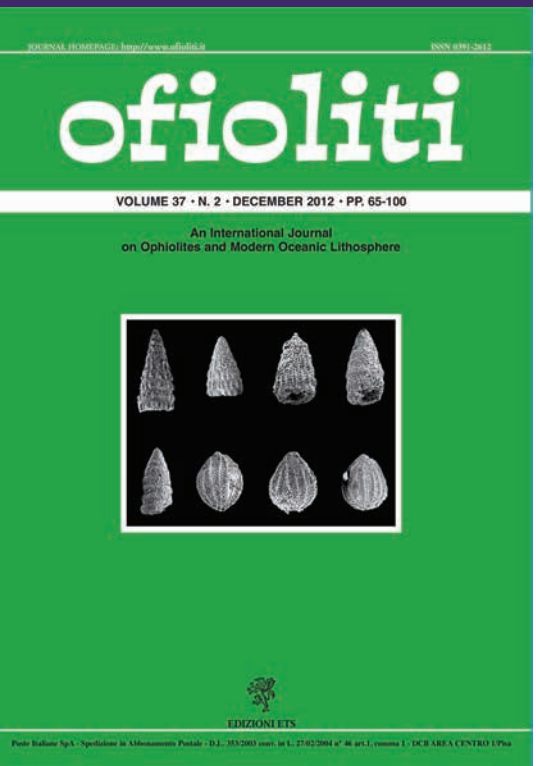
| Code | Sessions | Conveners |
|---|---|---|
| S1 | Taxonomy, systematics and phylogeny of radiolarians | Paula Noble & Nikita Bragin |
| S2 | Recent advances in radiolarian biostratigraphy | Taniel Danelian & Rie S. Hori |
| S3 | Radiolarians in geodynamics | Peter O. Baumgartner & Marco Chiari |
| S4 | Reconstruction of paleoenvironmental conditions and detection of climate changes through time using radiolarians | Giuseppe Cortese & Qinglai Feng |
| S5 | Biological and ecological characteristics of recent radiolarians | Demetrio Boltovskoy & Atsushi Matsuoka |

## Registration Fees

| | Early Registration<br>Before January 15, 2015 | Late Registration<br>After January 15, 2015 |
|---|---|---|
| Professional Fee (members *) | 390 Euros | 460 Euros |
| Professional Fee (non-members) | 470 Euros | 550 Euros |
| Student Fee | 290 Euros | 360 Euros |
| Accompanying Person | 250 Euros | 300 Euros |
| Pre-Conference Excursion | 600 Euros | 660 Euros |
| Post-Conference Excursion | 620 Euros | 680 Euros |

**(*) members of supporting and organizing institutions**

**Professional and student registration fees cover expenses of;**
Mid-conference field excursion - Aspendos Antique Theatre entrance fee
abstract volume and USB drive,
conference bag,
special souvenirs,
lunches and coffee breaks, as well as icebreaker party and farewell dinner.






*Proceedings of presentations submitted to oral or poster sessions may be eligible for peer-reviewed publications in the journals "Revue de micropaléontologie" and "Ofioliti". Deadline for online submission of original manuscripts is September 1, 2015. Details of the journal submission process will be announced in next circular.*

## REVUE DE MICROPALÉONTOLOGIE

"Revue de micropaléontologie" is one of five journals in the world dedicated exclusively to microfossils, and one of the oldest journals in its discipline. Articles are concerned with a range of current topics in Paleobiology, Paleobiodiversity, Evolution, Systematics, Biostratigraphy and Paleoenvironmental reconstructions, especially those that allow linking the microfossil record to global climate and environmental change. The journal has become a key player in the establishment of biostratigraphy and of paleoenvironmental reconstructions as a fundamental tool in Earth Sciences, and especially in petroleum exploration and development.

ISSN: 0035-1598
**Guest Editor: Taniel Danelian**

## OFIOLITI

"Ofioliti" was established in 1976, and provides an international forum for original contributions and reviews in the field of the geodynamics, petrology, geochemistry, stratigraphy, tectonics and paleogeography of both ophiolites and the lithosphere of present oceans, with their sedimentary cover. Studies of related topics such as the geodynamics of the mantle and the evolution of orogens including ophiolites are also welcome.

ISSN: 0391-2612
**Guest Editor: Marco Chiari**

## Program for Pre-Conference Field Excursion: Four days field trip to the Karakaya Complex and the Izmir-Ankara Suture Belt in central and western Turkey

**Excursion Leaders: M. Cemal Göncüoğlu, U. Kağan Tekin and Kaan Sayit**
**Four days (from March 19 to March 22, 2015).**

Starts in the city of Ankara and ends in the city of Antalya. Accommodation mainly in four star hotels, transportation and all meal fees included in excursion cost. Cost is 600 Euros. Limited to a maximum of 12 persons.

**March 18, 2015, Wednesday:**
Meet in the evening in the city of Ankara and overnight stay in the city of Ankara.

**March 19, 2015, Thursday**

First stop: Leave hotel early in the morning, then visit the locality with metric intercalations of radiolarian cherts of late Valanginian to latest Valanginian-earliest Hauterivian age and siliceous shales in a massif body of pillow basalts (with sheared contacts) belonging to Izmir-Ankara Melange Belt, on the road between town of Elmadağ and the city of Kırıkkale near the town of Kılıçlar (NE Ankara) (Bortolotti et al., 2013)

Second Stop: Visit a syn-sedimentary chert-pelagic carbonate succession of late Early Carnian to early Middle Carnian age within the mass flow deposits of the Palaeotethyan Karakaya Complex (mélange) on the road between the city of Ankara and the town of Elmadağ near the village of Ortaköy (NE Ankara) (Sayit et al., 2011). Overnight stay in the town of Beypazarı (west of the city of Ankara).

**March 20, 2015, Friday**

First stop: First locality is situated at the Izmir-Ankara Suture Zone to the south of the town of Nallıhan. Rock units belonging to Dağküplü Mélange in the Central Sakarya region crop out in this region. In addition to blocks and slivers of serpentinites, gabbros, blueschists, neritic and pelagic limestones, the Dağküplü Mélange includes blocks of basic volcanic rocks associated with radiolarian cherts, pelagic carbonates and mudstones. The age of the radiolarian assemblage from a tectonic block of chert-mudstone alternation associated with OIB-type basalts is assigned as early Berriasian-early Hauterivian. Another block of chert-mudstone alternation associated with MORB-type basalts includes Cenomanian radiolarian fauna (Göncüoğlu et al., 2006).

Second Stop: To the south of first locality, near the village of Igdecik, the Dağküplü Mélange includes E MORB-type basalts which were dated as late Carnian by radiolarians from associated radiolarian cherts. Different geochemical signatures have been obtained from surrounding volcanic rocks (Tekin et al., 2002; Göncüoğlu et al., 2010). Overnight stay in the city of Manisa.

**March 21, 2015, Saturday**

First stop: First locality is at the NE of city of the Manisa, near the village of Kömürcü, on the road between the towns Akhisar and Gördes. Here, ribbon cherts blocks and tectonic slices of the Izmir-Ankara Suture Complex and the marginal sediments of the Tauride-Anatolide platform within the Bornova Flysch Zone are exposed. One of the slices with continuous stratigraphy with ribbon cherts includes diverse and abundant radiolarians dated as late Ladinian to late Early Carnian (Tekin & Göncüoğlu, 2007).

Second Stop: It is at the road between towns of Akhisar and Sındırgı, near to the village of Söğütlü. In this region, the Bornova Flysch Zone (BFZ) comprises several olistoliths or tectonic slivers, representing various parts of the Izmir-Ankara oceanic crust. Radiolarian assemblages extracted from one of these olistoliths shows a continuous stratigraphic succession and has been dated as latest Bajocian – early Callovian at the base and Cenomanian at the top (Tekin et al., 2012). Overnight stay in the city of Manisa.

**March 22, 2015, Sunday**

Leave the city of Manisa early in the morning to visit the Aphrodisias antique city, near the town of Karacasu then attend the INTERRAD meeting in Crown Plaza Hotel, the city of Antalya.

## References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## Program for Mid-Conference Field Excursion: One day field trip to west of the city of Antalya (Cenomanian/Turonian Anoxic Event in the Antalya Nappes: the Doyran section)

**Excursion Leaders: U. Kağan Tekin, Yavuz Bedi, and Cengiz Okuyucu**

**One day in March 25, 2015, Wednesday.**

Visit to the Doyran section near the village of Doyran at the west of the city of Antalya and the Aspendos Roman Antique Theatre near the town of Serik at the east of the city of Antalya. Lunch and transportation expenses covered. Complimentary for all registered participants.

**March 25, 2015, Wednesday**

Leave the hotel early in the morning and visit the Doyran section near the village of Doyran to the west of the city of Antalya. The Doyran section in the Alakırçay Nappe (Middle Nappe) of the Antalya Nappes includes organic carbon-rich black shales within radiolarian-rich pelagic sediments. Biostratigraphical analysis reveals that the rock units studied encompass the Cenomanian/Turonian boundary (CTBE). The total organic carbon contents (TOC) of the black shales in this horizon vary from 7.89 to 42.19% wt. with an average value of 22.0% wt. The calculated values of the hydrogen and oxygen indexes indicate that the organic carbon originated from marine organic matter (type I/II kerogen) (Yurtsever et al., 2003).

Reference

Yurtsever, T. Ş., Tekin, U. K. and Demirel, I. H., 2003. First Evidence of the Cenomanian/Turonian Boundary Event (CTBE) in the Alakırçay Nappe of Antalya Nappes, SW Turkey. Cretaceous Research 24, 41-53.

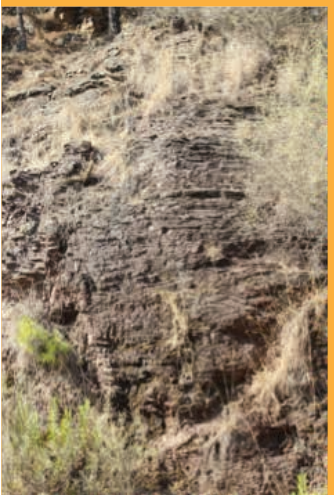
## Program for Post-Conference Field Excursion: Four days field trip to the Antalya Nappes, southern Turkey

**Excursion Leaders: U. Kağan Tekin, Yavuz Bedi, and Cengiz Okuyucu**
**Four days (from March 27 to March 30, 2015)**

Starts in Antalya and ends in Ankara. Accommodation in four star hotels, transportation, all meal expenses included in excursion cost. Cost is 620 Euros. Limited to a maximum of 12 persons.

**March 27, 2015, Friday:**

Leave the hotel in the morning to visit the Yaylakuzdere section near the town of Kemer to the NW of the city of Antalya. In this locality, thick, pillow basalts (the Karadere Basalts) are overlain by an alternation of limestone/cherty limestone and shale (the Gokdere Formation) in the Alakırçay Nappe (Middle Nappe) of Antalya Nappes. In this section, the age of the pillow lavas was assigned to late Carnian as the basal part of the overlying cherty limestones was dated as latest Carnian/earliest Norian based on conodont and radiolarian faunas. Geochemical data of pillow lavas at the base of the Yaylakuzdere section reveals that they were derived from the partial melting of a deep, enriched OIB-type mantle source without any crustal contamination (Tekin, 1999; Varol et al., 2007). Overnight stay in the town of Alanya to the east of the city of Antalya.



**March 28, 2015, Saturday:**

First Stop: This locality is at the NE of the town of Demirtaş on the road between the towns of Alanya and Gazipaşa. Near the village of Tırılar, close to the region of Taşlıca, the Sapadere formation in the Alakırçay Nappe (Middle Nappe) of Antalya Nappes is represented at the base by the Taşlıca Member composed of clayey limestones and limestones that are overlain by debris flow deposits. The Tırılar Member at the top is composed of silicified mudstones, mudstones with rare volcanic lenses and less-diverse radiolarians of late Ladinian to early Carnian age (Özgül, 1983; Tekin, 1999).

Second Stop: Three km from the first stop, near the region of Boğazdeğirmeni, basic volcanics are overlain by silicified mudstones of the Tırılar Member of the Sapadere Formation belonging to the Alakırçay Nappe (Middle Nappe) of the Antalya Nappes. Late Ladinian age is assigned for these silicified mudstones on the basis of radiolarians. Overnight stay in the in the town of Alanya.

**March 29, 2015, Sunday:**

First Stop: This stop is situated one km east of the village of Çukurköy, on the road between the towns of Alanya and Akseki. In this locality, thick spilitic basalts (the Karadere Basalts) are overlain by an alternation of mudstone, marl and pelagic cherty limestone (the Gökdere Formation) belonging to the Alakircay Nappe (Middle Nappe) of the Antalya Nappes. Radiolarian data from the cherty limestone in this unit reveals a middle Carnian age for this section. The pillow lavas in this region consist of within-plate type alkaline basalts and display similar multi-element pattern of typical oceanic island basalts (OIB) (Varol et al., 2007).

Second Stop: This stop is 5 km NW of the village of Hocaköy, very close to the village of Karaahmetler. At this locality, the upper part of the Karaahmetler section is represented by ribbon cherts (the upper part of the Hocaköy Radiolarite) and overlying pelagic limestone of the Keçili Formation (Islamoğlu-Özer, 2004). Very diverse and abundant radiolarians clearly indicate the late Albian to earliest Turonian ages from the upper part of the Hocaköy Radiolariate belonging to the Alakırçay Nappe of Antalya Nappes, while the age of the overlying pelagic limestone is early Turonian based on the planktonic foraminifera (Islamoğlu-Özer, 2004).

Third stop: The Hocaköy section is situated two km to the northwest of the village of Hocaköy. It is one of the best sections in the Alakırçay Nappe of the Antalya Nappes including 204m of a continous sequence of Late Triassic to mid-Cretaceous age with abundant radiolarians. The lowermost part of the section is characterized by an alternation of pelagic limestones and cherts (the Gökdere Formation) of late Norian-Rhaetian age based on abundant radiolarians (Tekin, 2002a). This sequence is overlain by alternating mudstone and silicified mudstone with chert and limestone breaks. They are in turn overlain by limestone, chert and mudstone alternations with abundant middle Hettangian to Sinemurian radiolarians (Tekin, 2002b). Higher in the section, the overlying chert-mudstone alternates with intermittent limestone breaks, is monotonous, and is called the Hocaköy Radiolarite. While late Aalenian-middle Bajocian age have been assigned to the lower part of this unit, uppermost part of the section has been dated as early Turonian (Tekin, 2002b; Islamoğlu-Özer, 2004). Overnight stay in the town of Alanya.

**March 30, 2015, Monday:**

Leave the town of Alanya early in the morning to visit the Dikmetaş section on the road between towns of Alanya and Taşkent. The base of the Dikmetaş section includes an alternation of sandstones and shales with biohermal limestone intercalations of late Norian age (the Kasımlar Formation) belonging to the Çataltepe Nappe (Lower Nappe) of the Antalya Nappes (Tekin, 1999). The overlying Kayabükü Formation is represented by an alternation of limestones and cherts with abundant radiolarians of Rhaetian age. Higher in the section, calciturbidite level is present as definite boundary between Triassic-Jurassic. Overlying units are characterized by limestones with rare secondary chert nodules of Hettangian-Sinemurian age (Tekin, 1999). After visit the Dikmetaş section, back to the city of Ankara via the city of Konya.

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14th INTERRAD ANTALYA 2015

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