

The foraminiferal association with *Balkhania balkhanica* (Mamontova), *Charentia cuvillieri* Neumann, *Everticyclammina hedbergi* (Maync), *Dictyoconus pachymarginalis* Schroeder, *Mayncina bulgarica* Laug, Peybernes & Rey, *Mesorbitolina texana* (Roemer), *Praeorbitolina cormyi* Schroeder, *Sabaudia minuta* (Hofker), *Torremiroella hispanica* Brun & Canerot and *Vercorsella scarsellai* (De Castro), indicates a Barremian-Aptian age for the whole succession.

Green algae (Dasycladales and Bryopsidales) dominate the calcareous algae association, consisting of ?*Conradella bakalovae* (Conrad & Peybernes), *Cylindroporella ivanovici* (Sokac), *Deloffrella quercifoliipora* Granier & Michaud, ?*Griphoporella cretacea* (Dragastan), *Kopetdagaria sphaerica* Maslov, *Montiella? elitzae* (Bakalova), *Morelletpora turgida* (Radoicic), *Neomeris* cf. *cretacea* Steinmann, *Salpingoporella* cf. *muehlbergii* (Lorenz), *Salpingoporella* sp., *Terquemella* div. sp., *Arabicodium* sp., *Boueina hostetteri* Toulou, *Boueina* sp., ?*Halimeda fluegeli* Bucur, *Permocalculus* cf. *irenae* Elliott and *Permocalculus minutus* Bucur. The green algae are rarely accompanied by red algae: *Marinella lugeoni* Pfender, *Parachaetetes asvapatii* Pia, *Pycnoporidium* sp., *Polystrata alba* (Pfender) or the microproblematic *Carpathoporella occidentalis* Dragastan.

The algae association from Herisht Mount contains several species that were previously identified in Aliabad area (south-west from Yazd, BUCUR et al., 2012); exception is made by *Morelletpora turgida*. Nevertheless, the latter has been also identified in samples from Khur region (see Bucur et al., this volume), thus it can be considered as a common species for the whole Yazd tectonic block.

This algae association developed in depositional environments ranging from internal shelf to shelf margin. The presence of the identified species, corroborated with the absence of species *Salpingoporella dinarica* indicates a paleogeographic affinity with the central-northern Tethys domain during the Lower Cretaceous.

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### **Late Cretaceous (Maastrichtian) dasycladalean algae from the Naghan area (Zagros Mountains, SW Iran): Preliminary results**

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In the Zagros Mountains of southwest Iran, Campanian-Maastrichtian shallow water limestones that locally may pass the K/T boundary are known as Tarbur Formation. Biostratigraphic zonations of the Tarbur Formation are based on larger benthic foraminifera. The study area is located approximately 50 km south of Naghan town near Gandomkar village. Within the Early-Middle Maastrichtian interval of the Tarbur Formation, inner platform wackestones contain a rather diverse association of dasycladalean algae with *Uteria* sp., *Salpingoporella* div. sp., *Pseudocymopolia anadyomenea* (Elliott), *Cymopolia* sp. and further undetermined taxa currently under study. The material studied contains well-preserved specimens of *P. anadyomenea*, the type-species of the genus *Pseudocymopolia* Elliott

yielding further data on this poorly known taxon that seems to be palaeobiogeographically restricted to the northern rim of the Arabian plate.

### **Algal assemblage of some small Permian patch reefs from the Sirjan area, (south Iran)**

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Permian deposits of Sannandj-Sirjan structural belt (STOECKLIN, 1968) are composed of three formations: Vajnan formation at the base, followed by the Abadeh formation in the middle and the Surmaq formation at the top. According to the Sirjan geological map (SABZEHEI et al., 1997) the basal part of the Permian deposits in south part of Sannandaj-Sirjan belt is called Jamal formation, a general terminus for the whole Permian sediments in central Iran. The name Jamal Formation was introduced by STOECKLIN et al. (1965) for the Permian strata in a section (type section) at the southern flank of the Mount Jamal (33° 21'N, 57° 19'E), about 60 km south of the town of Tabas.

The Permian deposits in the south of the town of Sirjan were studied by Sabzehei et al. (1997). Permian sediments in Sirjan area are divided to three units: The basal part is metamorphic, a kind of schist and started with red conglomerate, sandstone, and meta basic lava with angular unconformity surface. The middle and upper part are carbonatic units. The middle carbonate member is 351 m thick and is composed of medium to thick bedded gray limestone that crashed after the tectonic event. This member indicates shallow water deposits containing algae, fusulinids, sponges, bryozoans, brachiopods, and etc. The thickness of the upper part is about 224 m thick and the rocks are composed mainly by medium to thick bedded limestone. This unite contains carbonatic particles derived from the shallow water carbonates and deposited in the deeper water basinal sediments. The debris contains algae, sponges, fusulinid and some deeper water particles with calcisphaerids. The shallow water carbonates were transported by gravitational flows into the deeper marine deposits (turbidites).

Permian sediments were sampled in a section, about 60 km south of the town of Sirjan. 250 specimens were collected from carbonatic layers. There are some small reefal structures in the middle carbonate unit, which are composed mainly of dasycladales and phylloid algae, microbial crusts, bryozoans and sponges. Numerous thin sections were made from these reefal carbonate blocks. Two phylloid algal taxa were recognized. One of them assigned to *Anchicodium* sp., the second one (undeterminable) is strongly recrystallized, only some parts of the border are still recognizeable. These two taxa are extremely abundant algae within the small patch reefs. Most important dasycladales algae in carbonate layers and blocks are: *Mizzia velebitana* SCHUBERT 1908, *Gyroporella niponica* ENDO & HASHIMOTO 1955, *Physoporella* sp., *Epimastoporella* sp., *Paraepimastopora* sp., *Antracoporella* sp. Microbial crusts, without recognizable internal structure, are also very abundant.