Upper Jurassic-Lower Cretaceous limestones from the easternmost Getic Carbonate Platform (Southern Carpathians, Romania). Microfacies, microfossils and depositional environments

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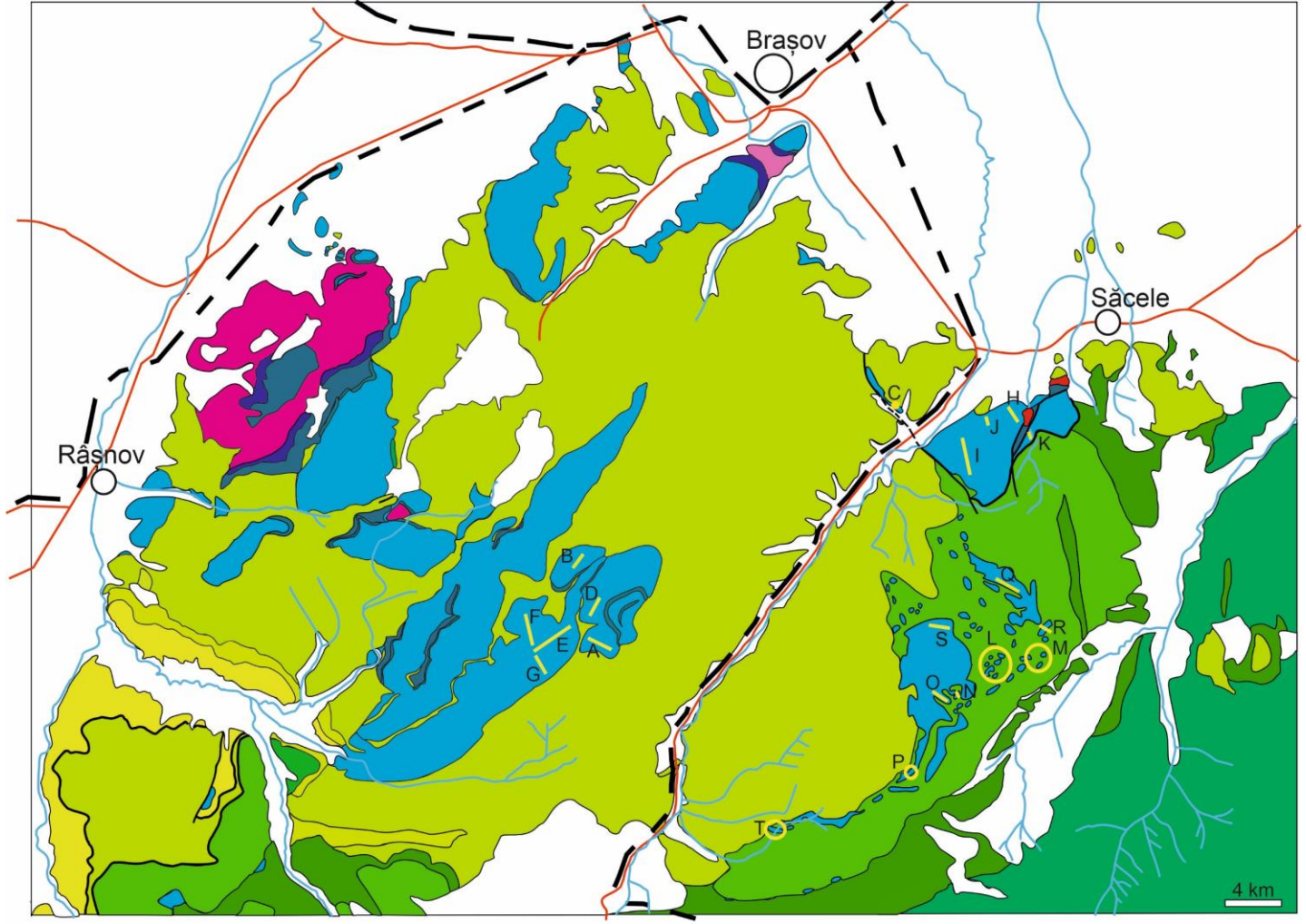
Geological framework and location of studied sections



LEGEND

Kimmeridgian-Berriasian — Štramberk-type limestones
Callovian-Oxfordian — Radiolarites
Bajocian-Bathonian — Quartzitic sandstones
Lower Jurassic — Gresten-type facies
Ladinian — Wetterstein-type limestones
Anisian — Guttenstein-type limestones

Quaternary — Detrital deposits
Turonian-Campanian — Grey and red marly limestones
Cenomanian-Turonian — Grey marls and massive sandstones
Albian-Cenomanian — Polymictic Conglomerates (Postăvaru Cgl.; Bucegi Cgl.)
Aptian — Polymictic conglomerates
Barremian-Aptian — Flysh deposits
Neocomian — Brașov marls

Road
Railway
Localities
Rivers
Thrust
Fault

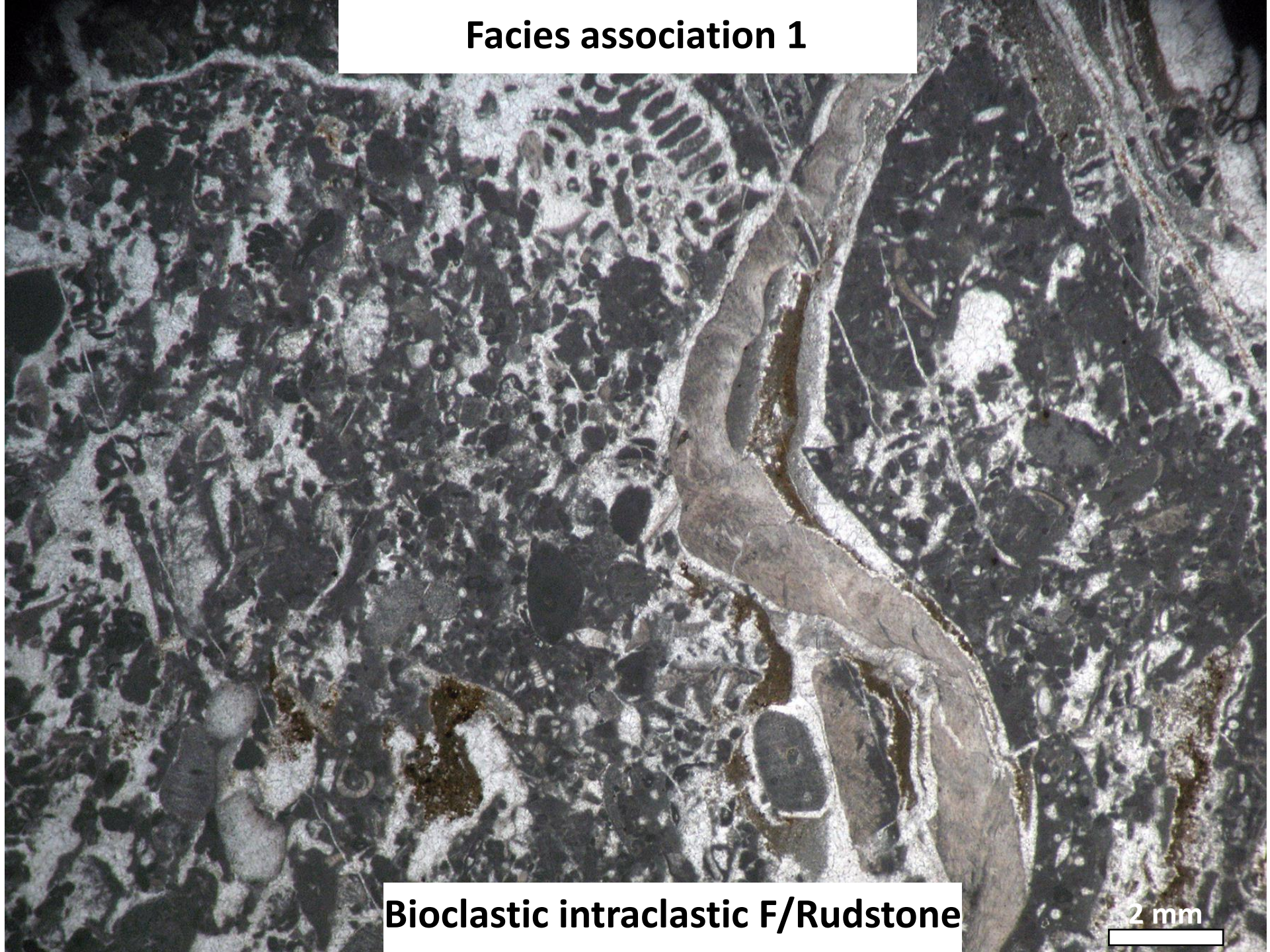
Studied sections: A- Valea Dragă; B- Drumul Albastru; C - Larga Mare; D - Vârful Postăvaru
E - Muchia Cheii-Trei Fetițe; F - Trei Fetițe-Cabana Postăvaru; G - Trei Fetițe-Poiana Secuilor; H - Bunloc Est; I - Bunloc Vest;
J - Cariera Bunloc; K - Cheile Baciului; L - Cabana Piatra Mare olistoliths; M - V. Gârcinului olistoliths; N - Șura de Piatră; O - Piatra Scrisă;
P - Coada Pietrei Mari; Q - Șirul Stâncilor; R - Peștera de Gheață; S - Prăpastia Ursului; T - Tamina

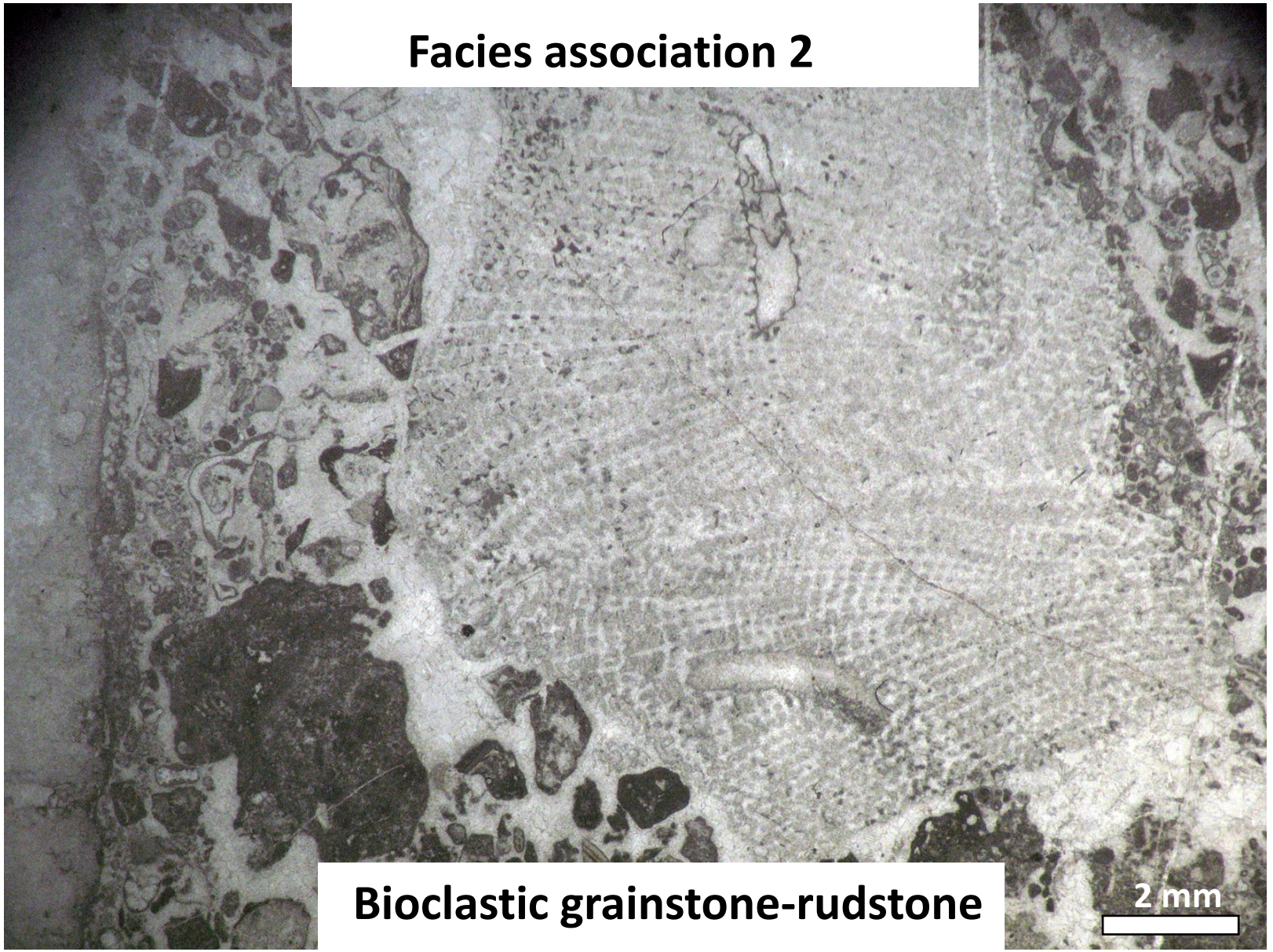
Modified from Sandulescu, 1964 and Sandulescu et al. (1972)

Outcrop characteristics

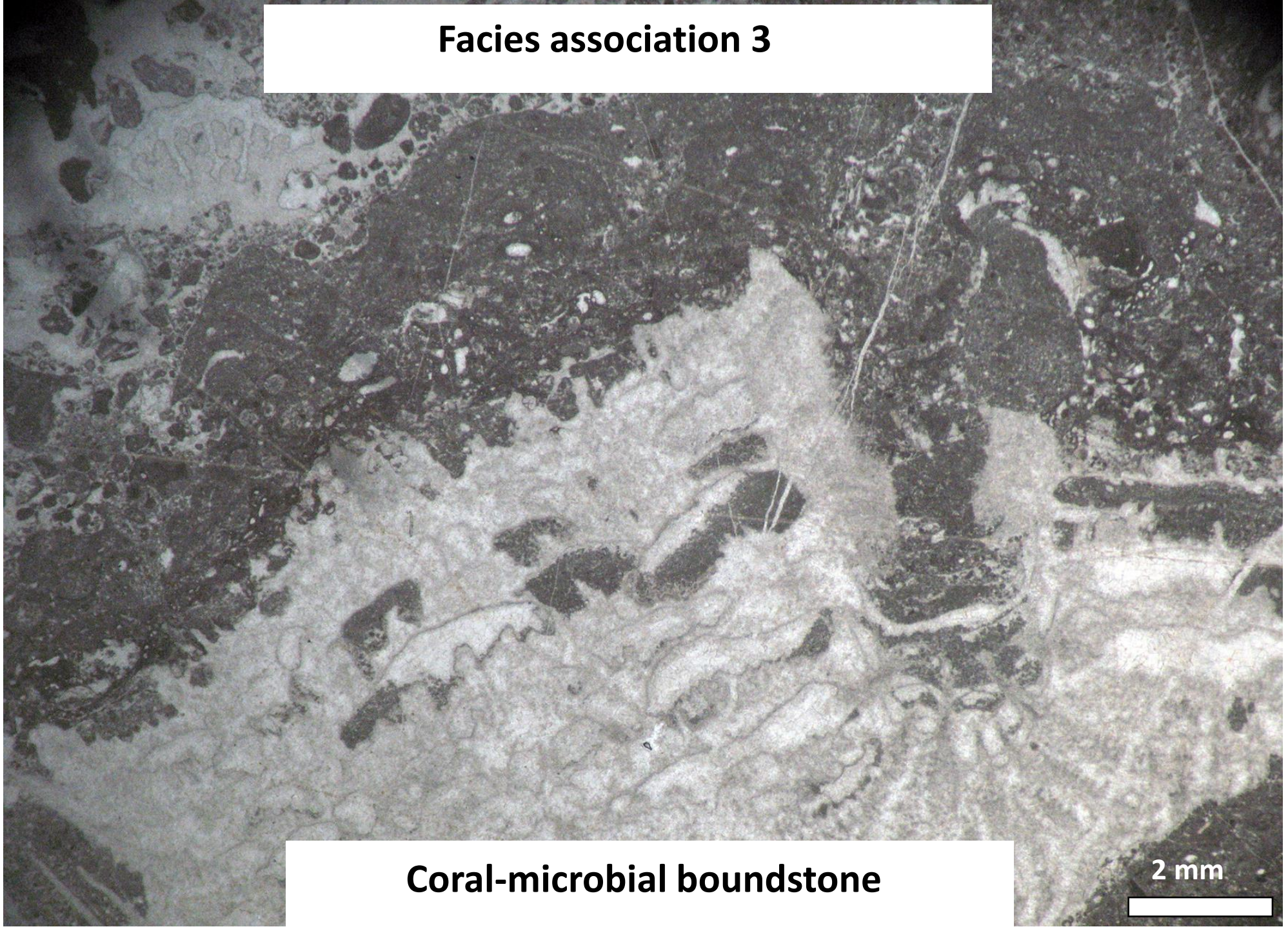

2 cm

Facies associations

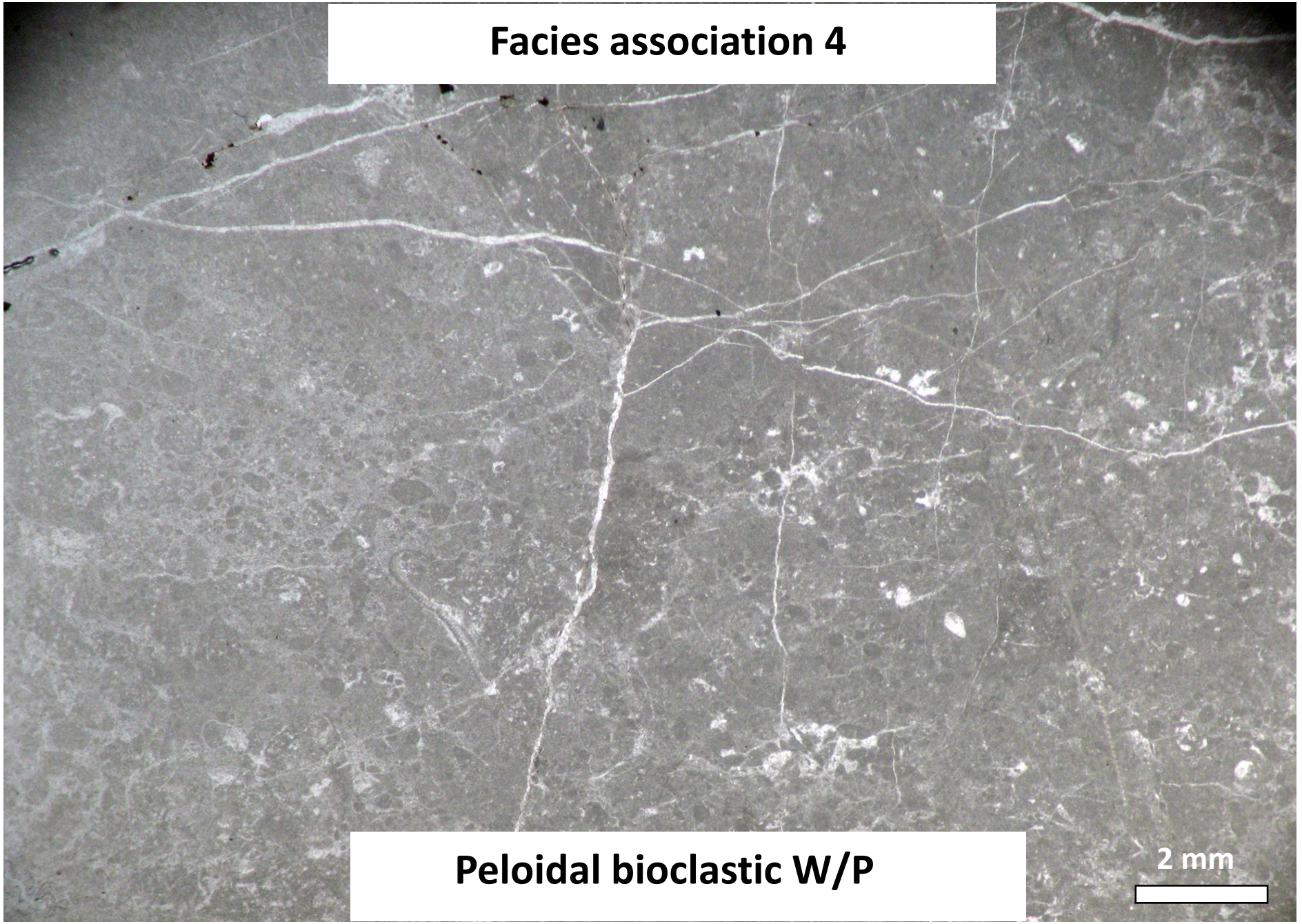

Facies association 1
Bioclastic intraclastic F/Rudstone
2 mm


Facies association 2
Bioclastic grainstone-rudstone
2 mm

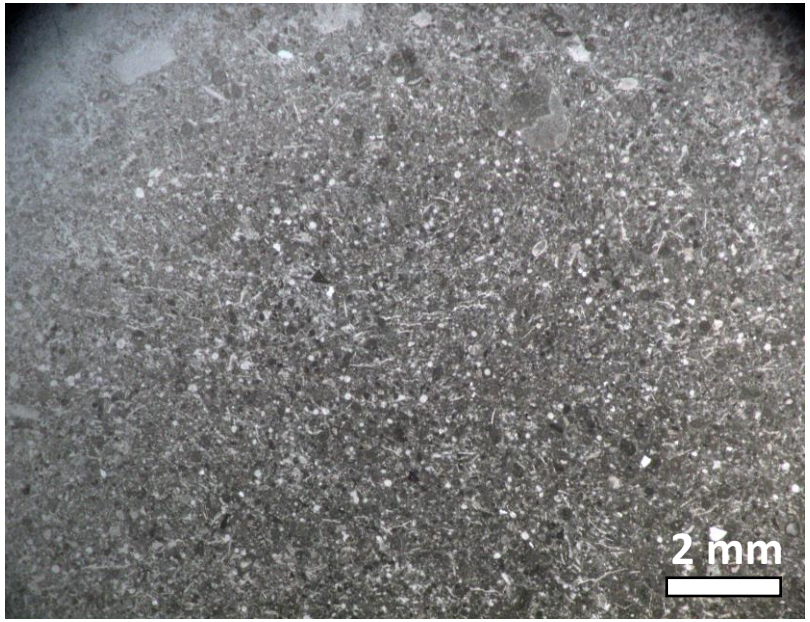
Facies association 3



Coral-microbial boundstone

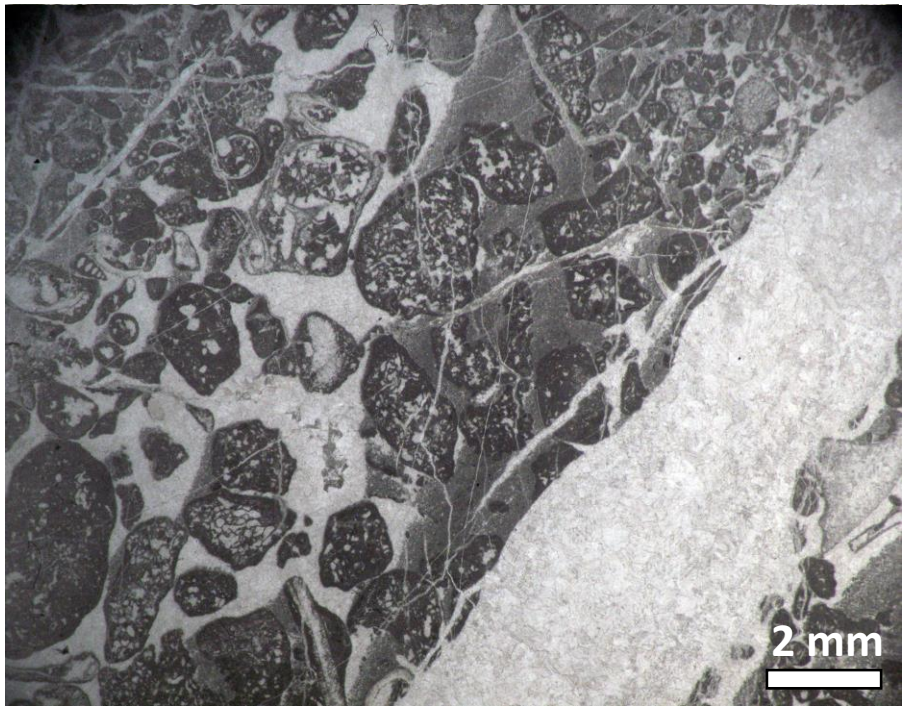

Facies association 4
Peloidal bioclastic W/P
2 mm

Silicified wackestone



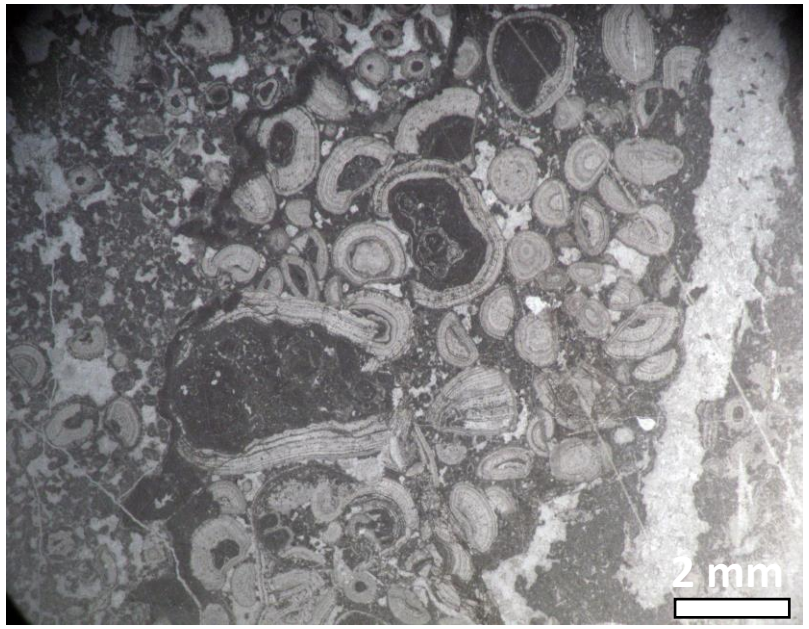
Facies association 5

Peloidal bioclastic grainstone



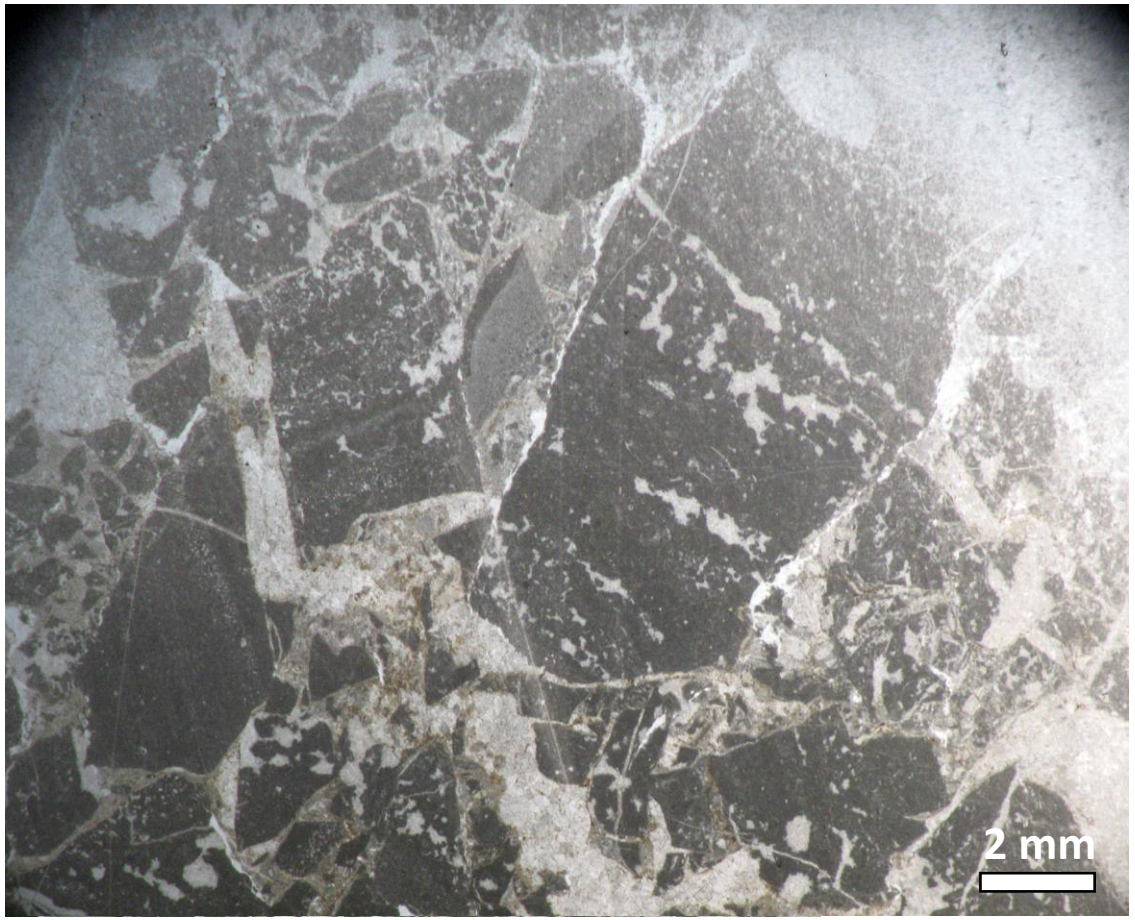
Facies association 6

Ooidic packstone-grainstone



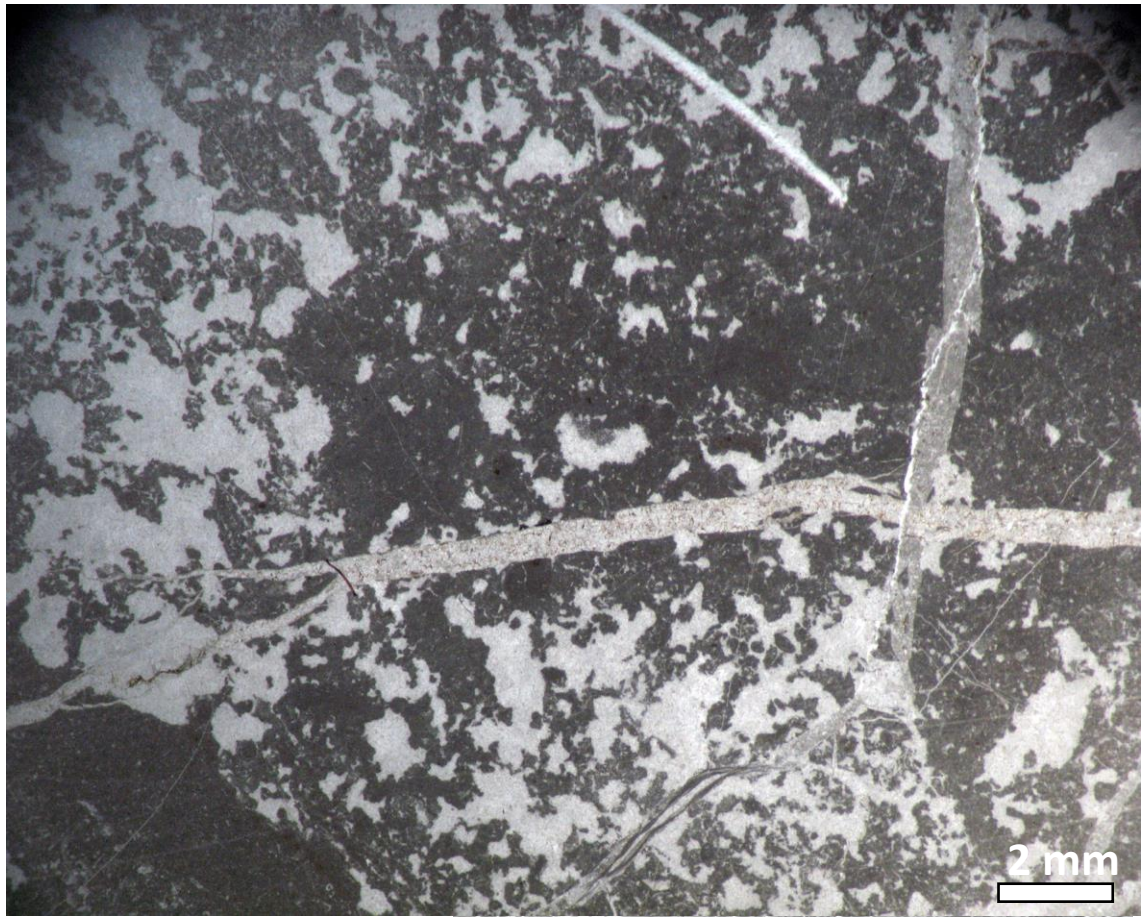
Facies association 7

Facies association 8



Fenestral peloidal packstone

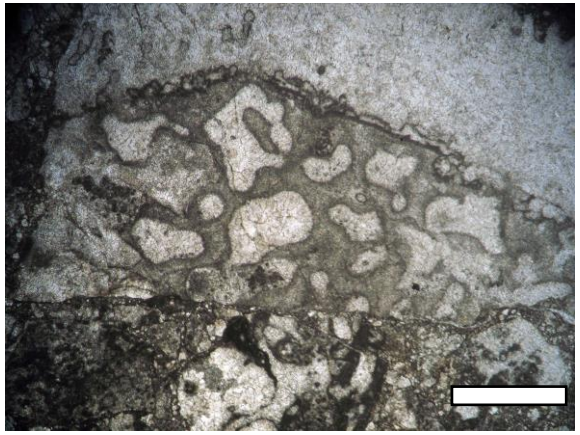
Facies association 9



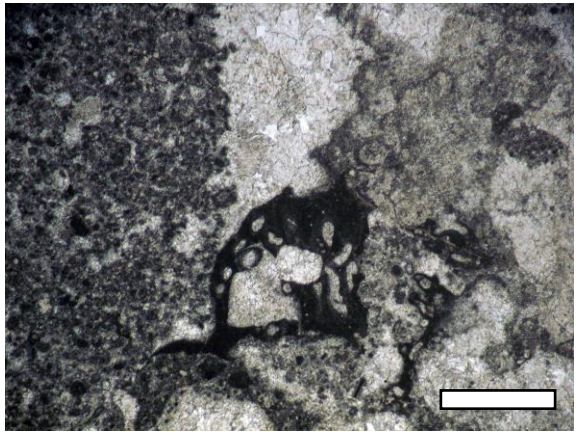
Fenestral wackestone

Micropaleontological associations

Encrusting organisms, dasycladalean algae, foraminifera and pelagic microfossils

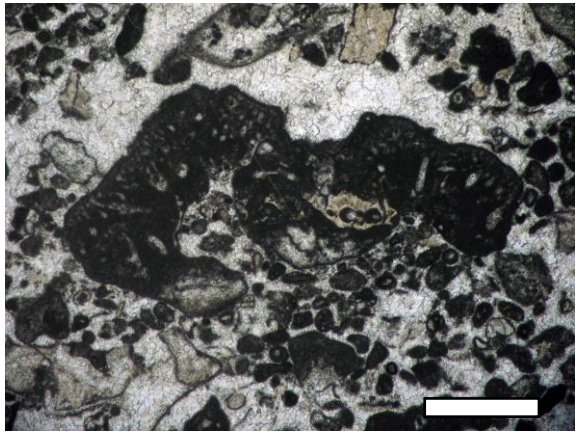


P. leini

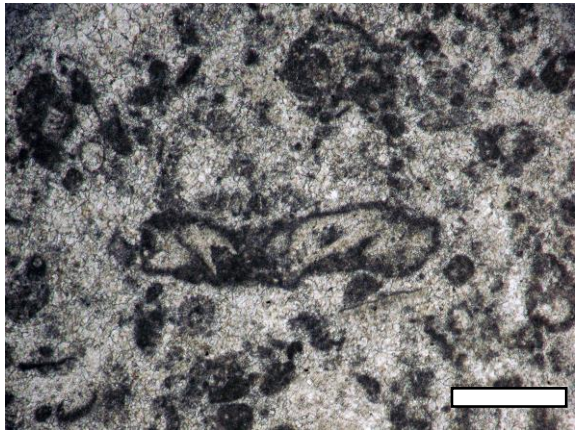


L. atramentosa

C. morronensis



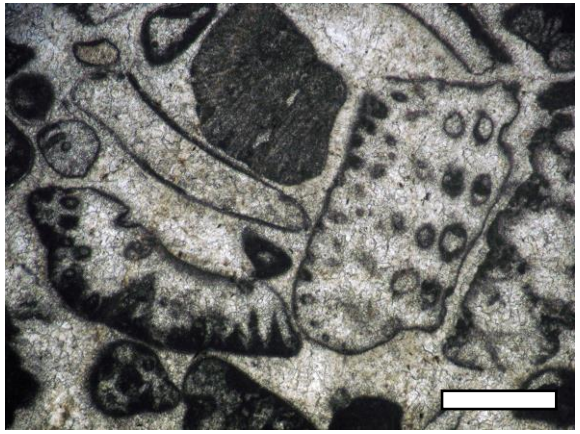
Lithocodium type structures



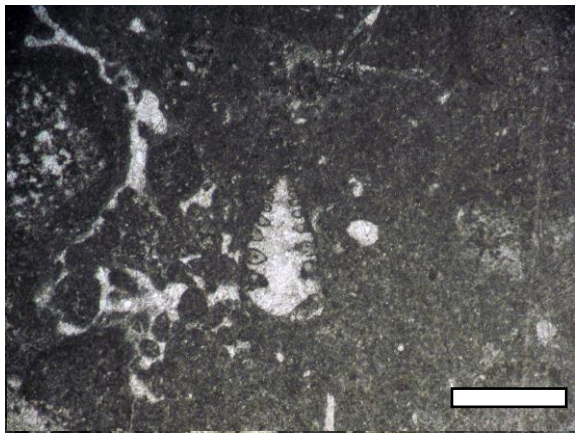
A. sulcata

S. pygmaea

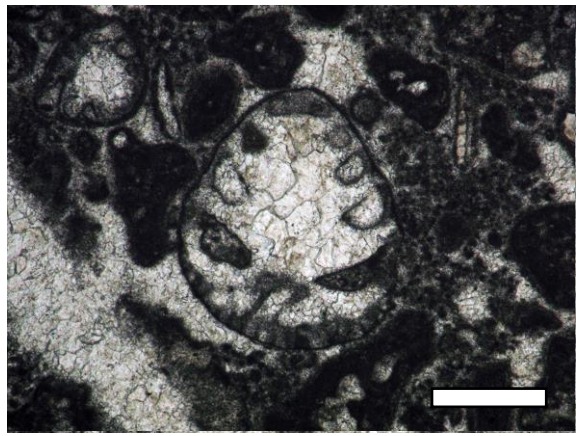
A. sulcata



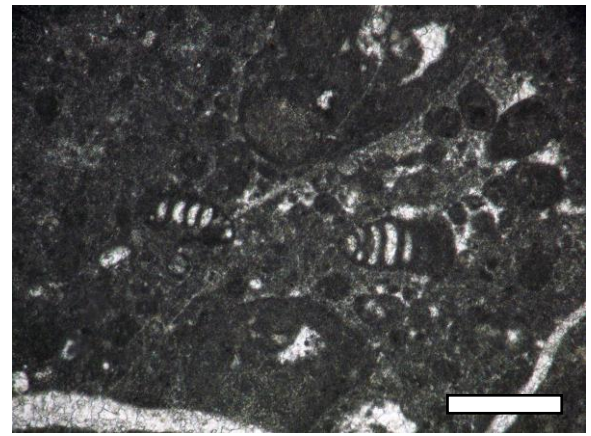
P. bursiformis



C. sagittarius

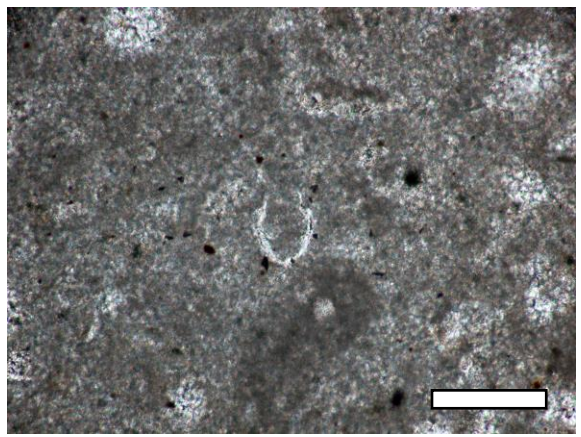


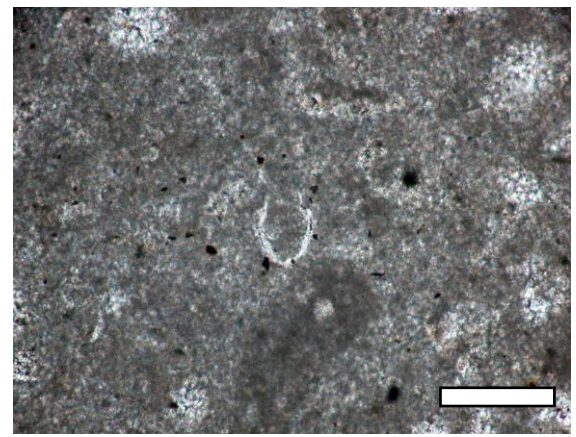
C. campanellus



P. gavonensis

P. ultragranulata





C. alpina

Conclusions

1) **This study was focused on interpreting the Upper Jurassic-Lower Cretaceous transition in the easternmost part of the Getic Carbonate Platform (Postăvaru Massif). Its main purpose was to elucidate facies and biostratigraphic uncertainties generated by the lack of similar aproaches in this area.**

2) **The microfacies data indicates that carbonate deposition was common in a large spectrum of depositional settings that range from basin (FA 5) to slope (FA 1-3) and inner platform areas (FA 6-9)**

3) **The micropaleontological assemblage characterizes the Kimmeridgian-Tithonian-Berriasian interval. The presence of some foraminifera (*C. campanellus*, *C. sagittarius*, *P. gavonensis*) and abundant calpionellids (*C. alpina*) indicates that carbonate sediment accumulation continued until the Berriasian.**

Acknowledgments

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Thank you for your attention !