

Fig. 1 – List of localities

1 - Medalův Mlýn

2 - Tok Hill

3 - Kočka Hill

4 - Vinice – Za Baborským

5 - Felbabka

6 - Zbraslav

7 - Levín

8 - Hlásná Třebáň

9 - Pod Dračí skálou

10 - Hlubočepy

11 - Hostim

The figure is based on Fatka et al. (2009, Fig.2), and further modified after, Budil et al. (2013), Gutiérrez–Marco et al. (2017), and Fatka & Valent (2019).

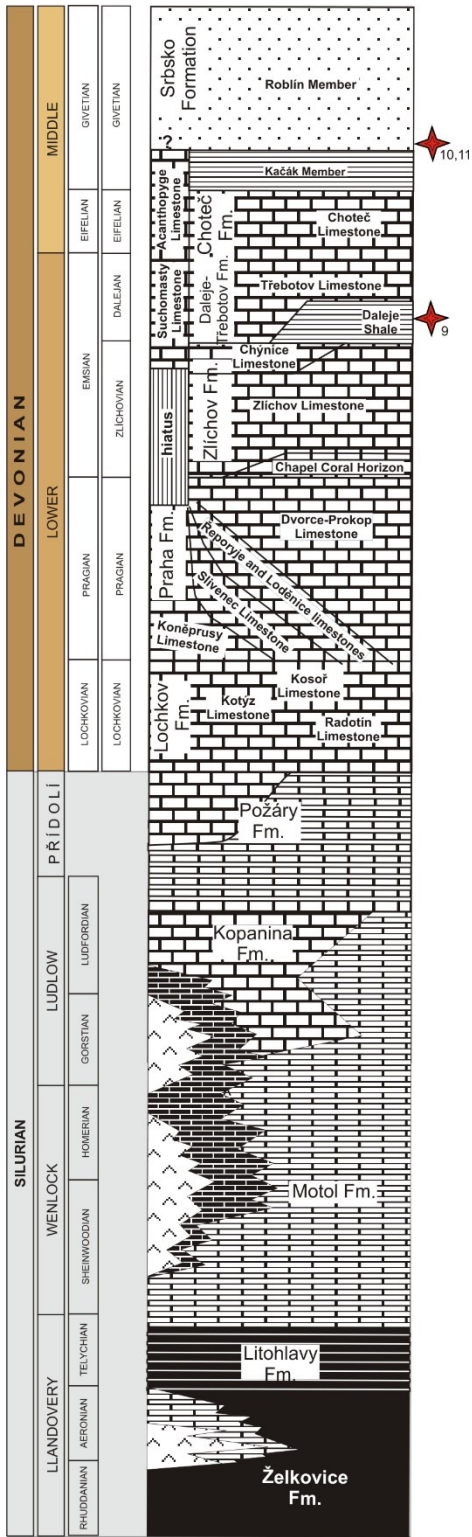
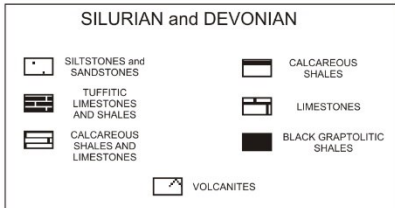
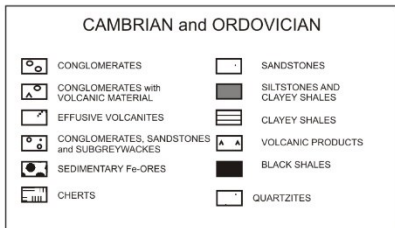
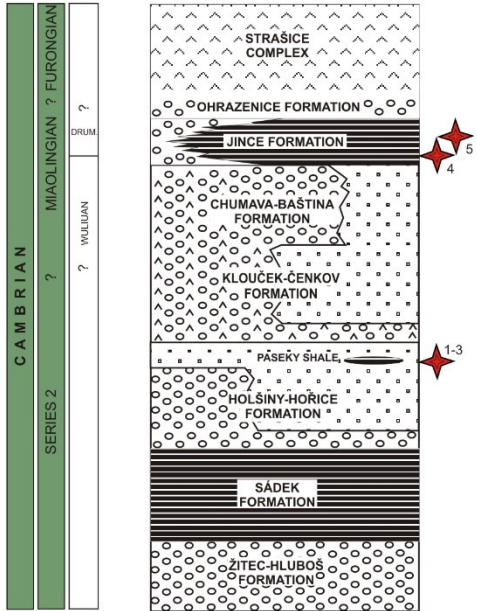
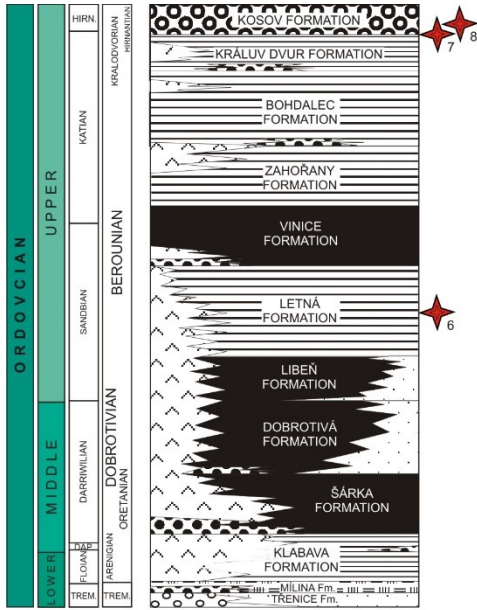


Fig. 2

Organic-walled microfossils of the Paseky Shale (Stage 4?, Cambrian), locality Kočka Hill.

A - *Leiosphaeridia* sp. - slide PB-K2c, EF: J.43-2.

B - *Siphonophycus* sp. - slide PB-K2b, EF: H.48-1.

C - *Polytrichoides* sp. - slide PB-K2a, EF: K.37-1.

D - ?*Siphonophycus* sp. - slide PB-K2b, EF: E.48-3.

E-H - *Polytrichoides* sp.

E - slide PB-K2a, EF: K.37-1.

F - slide PB-K2a, EF: H.41-4.

G - slide PB-K2a, EF: J.36-3.

H - slide PB-K2b, EF: J.33-1.

I-K - *Botuobia* sp.

I - slide PB-K2a, EF: L.42-2.

J - slide PB-K2c, EF: U.30-2.

K - slide PB-K2c, EF: G.38-3.

L - putative protoconodont superimposed on organic sheet - slide PB-K2a, EF: X.32-2.

M - row of conical *Ceratophyton*-like elements - slide PB-K2a, EF: K.40-1.

N - *Ceratophyton*-like element - slide PB-K2b, EF: J.33-4.

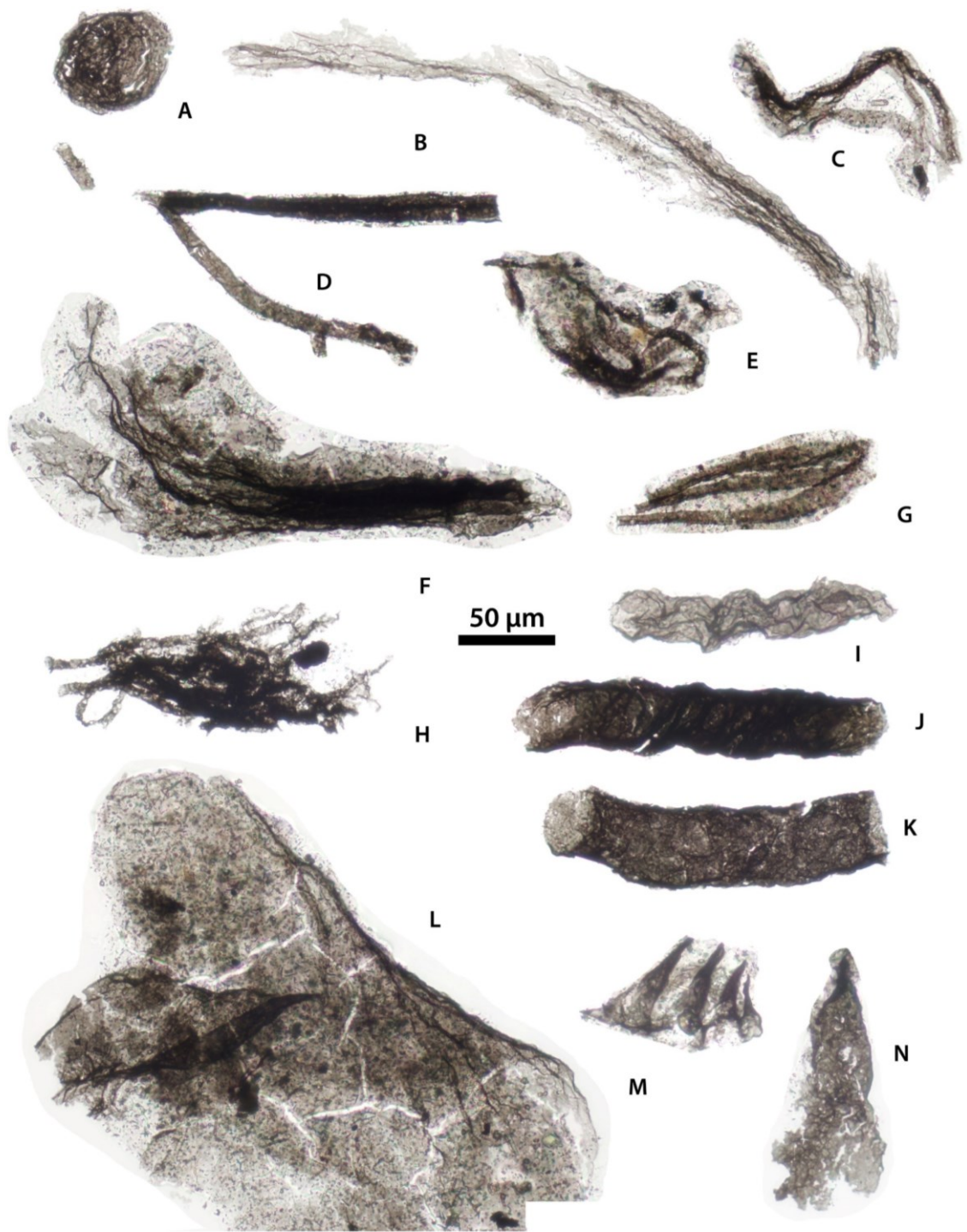


Fig. 3

Wiwaxiid sclerites of the Jince Formation (Drumian, Cambrian), locality Vinice – Za Baborským.

A - damaged sclerite of ?*Wiwaxia* - slide JS-V3d, EF: K.39-2.

B - sclerite of *Wiwaxia* sp. - slide JS-V3d, EF: D.34-4.

C - ventrolateral sclerite of *Wiwaxia* sp., slide JS-V3b, EF: H.48-2.

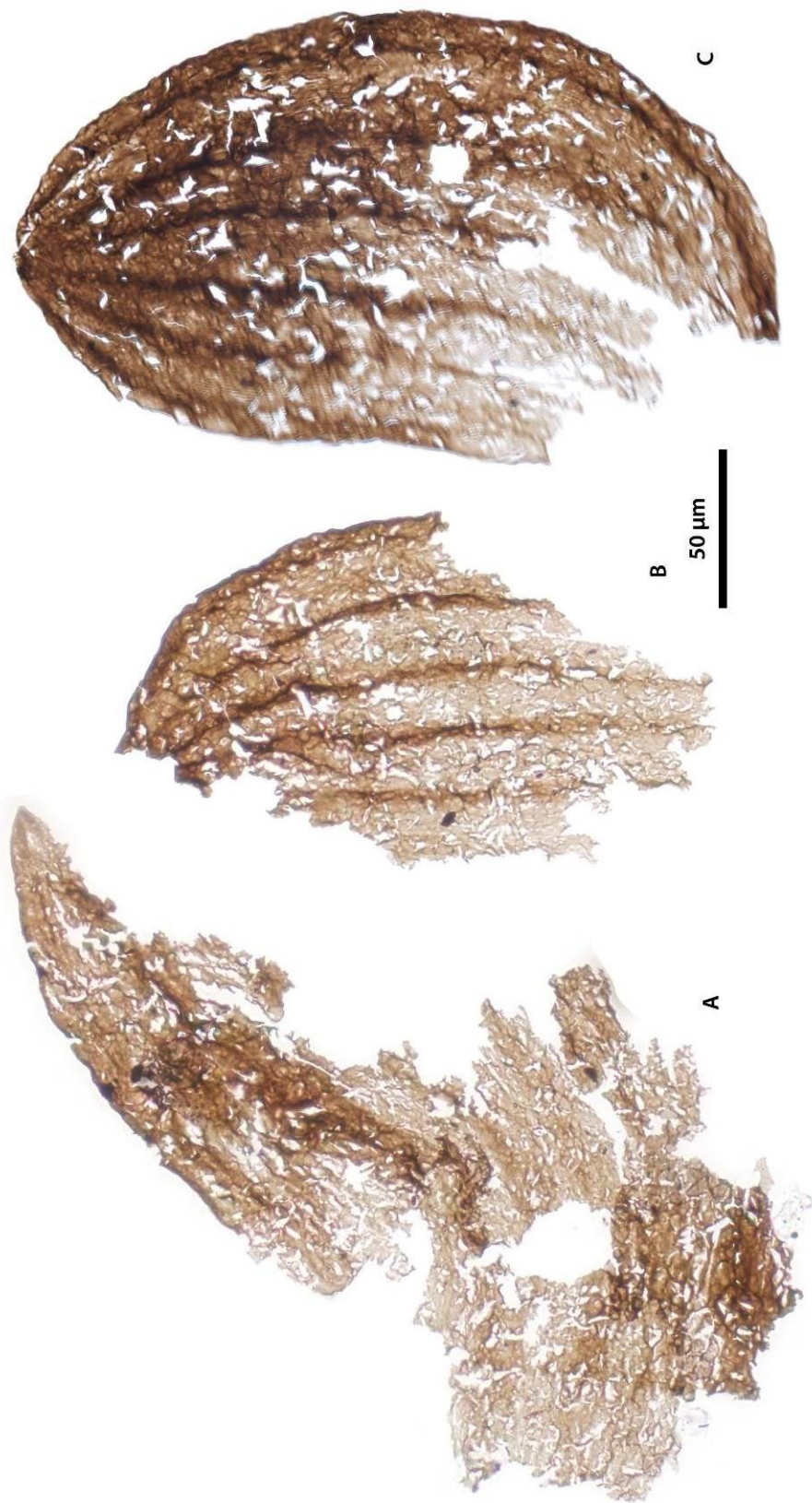


Fig. 4

Organic-walled microfossils of the Jince Formation (Drumian, Cambrian), locality Za Baborským.

A - cluster of *Timofeevia* sp. - slide JS-V3f, EF: M.43-1.

B-C - tetrads.

B - slide JS-V3e, EF: K.46-1.

C - slide JS-V4a, EF: B.60-2.

D - cluster of *Cymatiosphaera* sp. - slide JS-V4b, EF: S.44-4.

E - cluster containing ?*Cymatiosphaera* and ?*Stictosphaeridium* - slide JS-V3e, EF: L.45-4.

F - cluster of *Cymatiosphaera* sp. - slide JS-V4a, EF: H.52-1.

G - tetrad - slide JS-V3b, EF: T.36-3.

H - cluster of *Eliasum* sp. - slide JS-V4b, EF: L.45-4.

I - filamentous fossil - slide JS-V3e, EF: P.40-4.

J - massive cluster of ?*Leiosphaeridia* sp. - slide JS-V4b, EF: F.46-3.

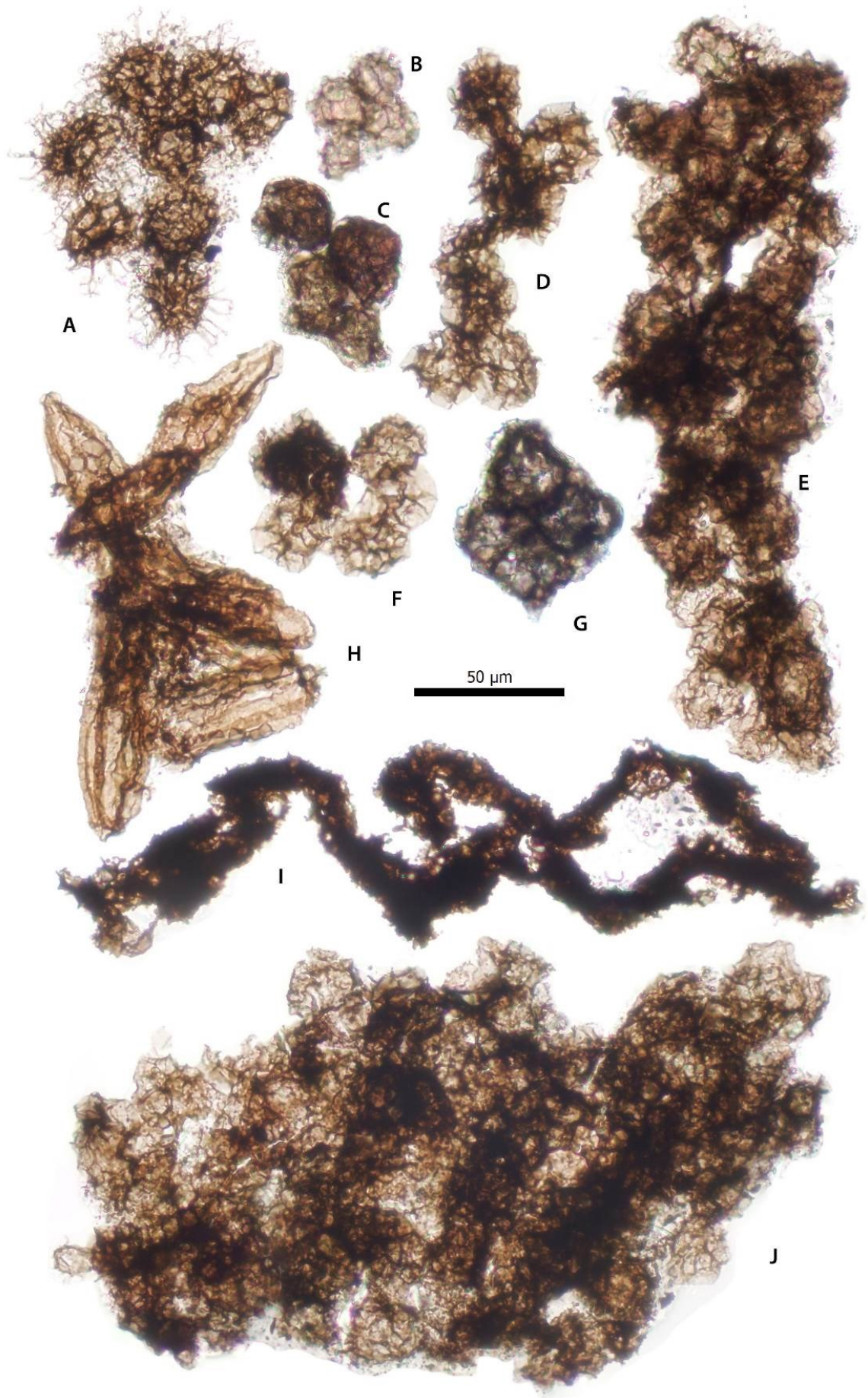


Fig. 5

Organic-walled microfossils of the Jince Formation (Drumian, Cambrian), localities Za Baborským (A–X, AA–AC) and Felbabka (Y–Z).

A–B - *Timofeevia* sp.

A - slide JS–V3a, EF: S.30–4.

B - slide JS–V3a, EF: M.34–4.

C - slide JS–V3a, EF: L.42–1.

D - slide JS–V3f, EF: L.35–4.

E - slide JS–V4a, EF: S.50–3.

F–J - *Adara* sp.

F - slide JS–V3a, EF: V.30–1.

G - slide JS–V3a, EF: V.33–1.

H - slide JS–V3f, EF: W.45–1.

I - slide JS–V3f, EF: U.48–2.

J - slide JS–V3f, EF: W.45–1.

K–O - *Cymatiosphaera* sp.

K - slide JS–V3a, EF: H.33–3.

L - slide JS–V3A, EF: W.36–2.

M - slide JS–V3e, EF: E.34–2.

N - slide JS–V3c, EF: U.42–4.

O - slide JS–V3d, EF: Q.41–3.

P–R - *Eliasum* sp.

P - slide JS–V4a, EF: A.52–4.

Q - slide JS–V4b, EF: K.30–2.

R - slide JS–V4a, EF: S.51.

S - ?*Stictosphaeridium* sp. - slide JS–V3a, EF: S.46–4.

T–U - *Eliasum* sp.

T - slide JS–V4a, EF: R.43–4.

U - slide JS–V4b, EF: F.31–1.

V - ?*Leiosphaeridia* sp. - slide JS–V3c, EF: W.47–4.

W - cluster of small spherical elements - slide JS–V4b, EF: L.30–2.

X - dyad - slide JS–V3a, EF: V.29–3.

Y - poorly preserved pair of ?*Annulum* sp. - slide JS–R3a, EF: P.42–2.

Z - *Leiosphaeridia* sp. - slide JS–R3a, EF: R.48–3.

AA–AC - ?*Leiosphaeridia* sp.

AA - slide JS–V3c, EF: J.28–2.

AB - slide JS–V3d, EF: O.32–1.

AC - slide JS–V3e, EF: K.32–4.

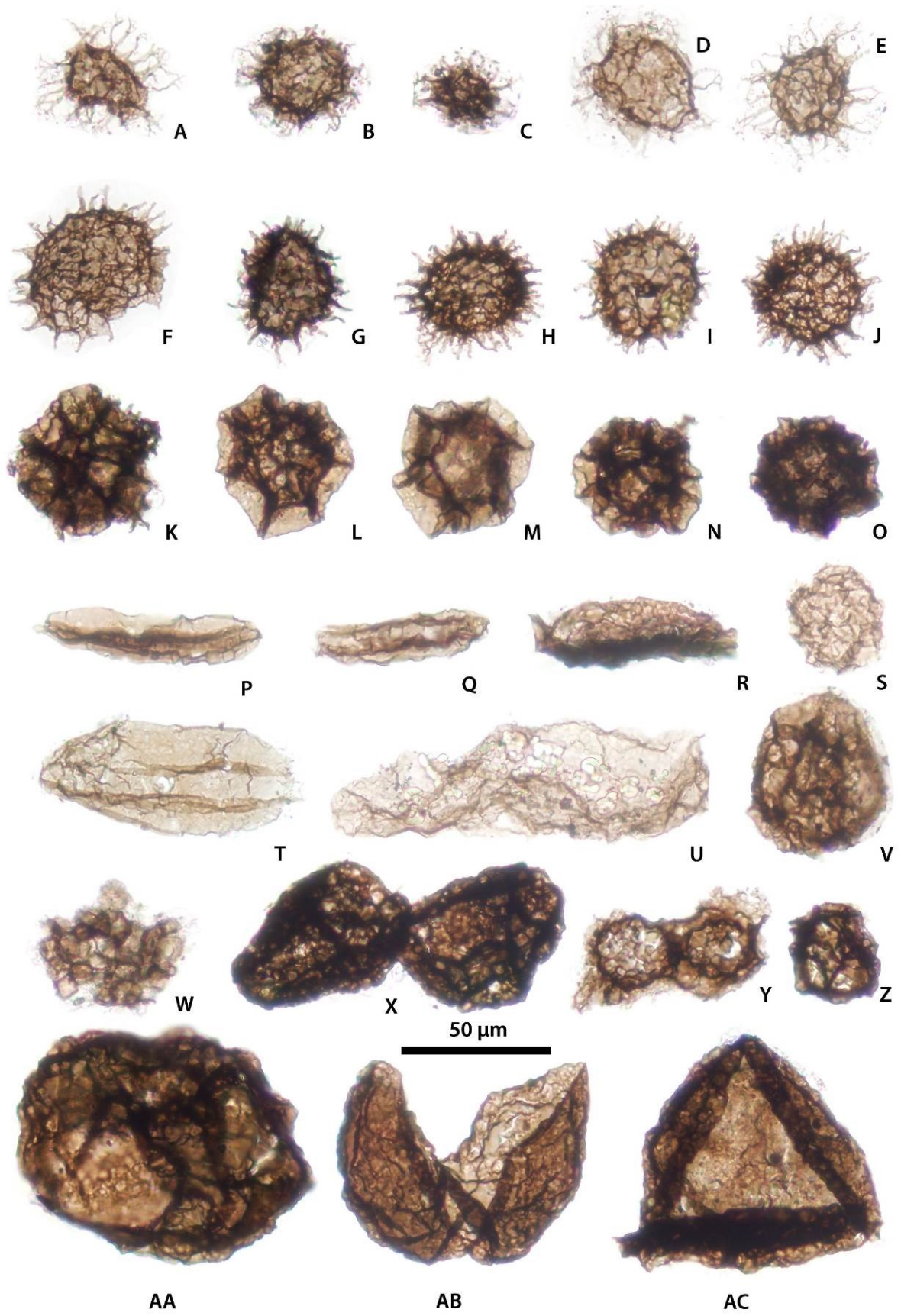


Fig. 6

Organic-walled microfossils of the Letná Formation (Sandbian, Ordovician), locality Zbraslav.

A–E - cuticular fragments.

A - slide ZW3a, EF: T.44–4.

B - slide ZW3c, EF: M.34–2.

C - slide ZW3c, EF: L.43.

D - slide ZW3b, EF: L.37–4.

E - slide ZW3b, EF: C.34–1.

F–H - undetermined fossils.

F - slide ZW3b, EF: P.47–1.

G - slide ZW3a, EF: G.44–2.

H - slide ZW3c, EF: K.39–4.

I–K - undetermined scolecodonts.

I - slide ZW3b, EF: S.48–4.

J - slide ZW3b, EF: M.31–2.

K - slide ZW3b, EF: S.36–2.

L - ?*Belonechitina* sp. - slide ZW3b, EF: F.32–3

M - *Desmochitina* sp. - slide ZW3b, EF: F.32–1

N - *Cyathochitina* sp. - slide ZW3b, EF: R.40–4

O - *Conochitina* sp. - slide ZW3b, EF: C.42–4

P - chain of *Linochitina* sp. - slide ZW3b, EF: N.50–4



Fig. 7

Organic-walled microfossils of the Letná Formation (Sandbian, Ordovician), locality Zbraslav.

A - *Ordovicidium* sp. - slide ZW3c, EF: H.38–4.

B - undetermined acritarch - slide ZW3a, EF: S.37–1.

C–P - *Veryhachium* sp.

C - slide ZW3c, EF: M.43–3.

D - slide ZW3c, EF: S.43–4.

E - slide ZW3b, EF J.44–3.

F - slide ZW3c, EF: R.44–1.

G - slide ZW3b, EF: K.29–2.

H - slide ZW3b, EF X.44–4.

I - slide ZW3c, EF: Q.35–2.

J - slide ZW3c, EF: P.32–4.

K - slide ZW3b, EF: V.31–2.

L - slide ZW3a, EF: E.34–4.

M - slide ZW3c, EF: N.45–3.

N - slide ZW3b, EF: S.50.

O - slide ZW3a, EF: L.42–4.

P - slide ZW3b, EF: R.47.

Q–R - undetermined acritarchs.

Q - slide ZW3b, EF: U.43–2.

R - slide ZW3c, EF: G.49–1.

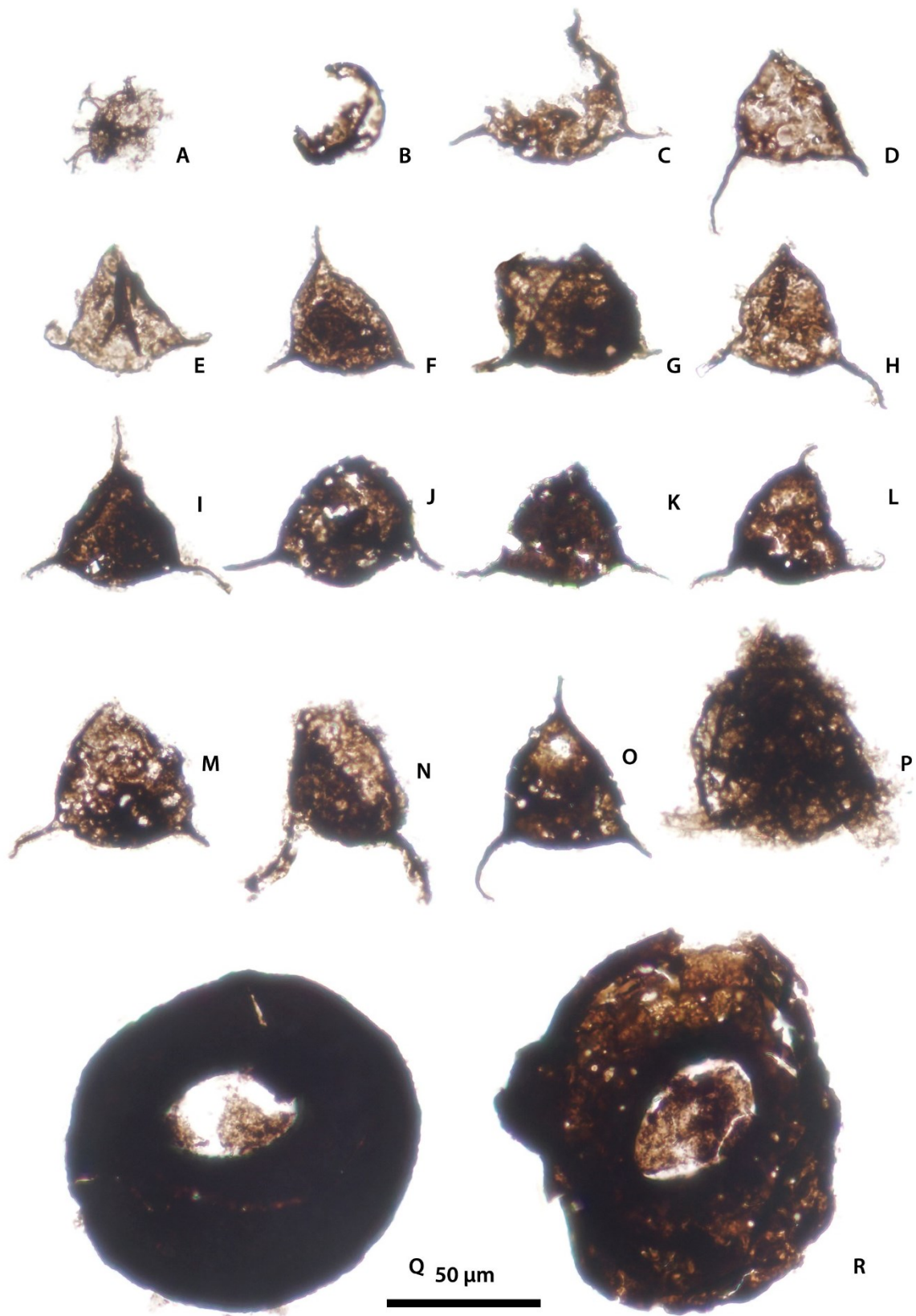


Fig. 8

Organic-walled microfossils of the Kosov Formation (Hirnantian, Ordovician), localities Levín (B–C, G–H, K, N) and Hlásná Třebáň (A, D–F, I–J, L–M, O).

A–E - poorly preserved ?*Leiosphaeridia* sp.

A - slide HITr-01-01, EF: T.32-2.

B - slide Levín-02-01, EF: M.32.

C - slide Levín-02-02, EF O.59-4.

D - slide HITr-01-01, EF: F.39-1.

E - slide HITr-01-01, EF: Z.54-2.

F–G - fragments of pseudocelular cuticle.

F - slide HITr-01-01, EF: T.55-2.

G - slide Levín-01, EF: P.53-3.

H - tubular fossil - slide Levín-02-02, EF: U.29-4.

I - paulinitid scolecodont - slide HITr-01-01, EF: E.31-4.

J - undetermined scolecodont - slide HITr-01-01, EF: H.38-1.

K - *Euconochitina* sp. - slide Levín-01, EF: E.25-4.

L - *Conochitina* sp. - slide HITr-01-01, EF: Z.48-4.

M - *Cyathochitina* sp. - slide HITr-01-02, EF: E.48-4.

N - ?*Spinachitina* sp. - slide Levín-02-02, EF: R.29-1.

O - *Conochitina* sp. - slide HITr-01-01, EF: X.43-4.



Fig. 9

Chitinozoans and scolecodonts of the Daleje Shale (Emsian, Devonian), locality Pod Dračí skálou.

A - ?*Sphaerochitina* sp. - slide DB-DS2a, EF: M.48-3.

B - *Ancyrochitina* sp. - slide DB-DS2c, EF: P.39-4.

C - ?*Ancyrochitina* sp. - slide DB-DS2c, EF: X.37-2.

D - *Ancyrochitina* sp. - slide DB-DS2c, EF: F.27-2.

E - *Angochitina* sp. - slide DB-DS2c, EF: R.46-1.

F - ?*Ancyrochitina* sp. - slide DB-DS2c, EF: E.29-1.

G-H - undetermined scolecodont fragments

G - slide DB-DS2c, EF: W.28-4.

H - slide DB-DS2c, EF: H.36.

I - polychaetaspid scolecodont, possibly ?*Oeononites* sp. - slide DB-DS2c, EF: W.40-2.

J - indeterminate scolecodont - slide DB-DS2c, EF: V.37-1.

K - paulinitid scolecodont - slide DB-DS2c, EF: W.28.

L - ?tetraprionid scolecodont - slide DB-DS2c, EF: Q.32-2.

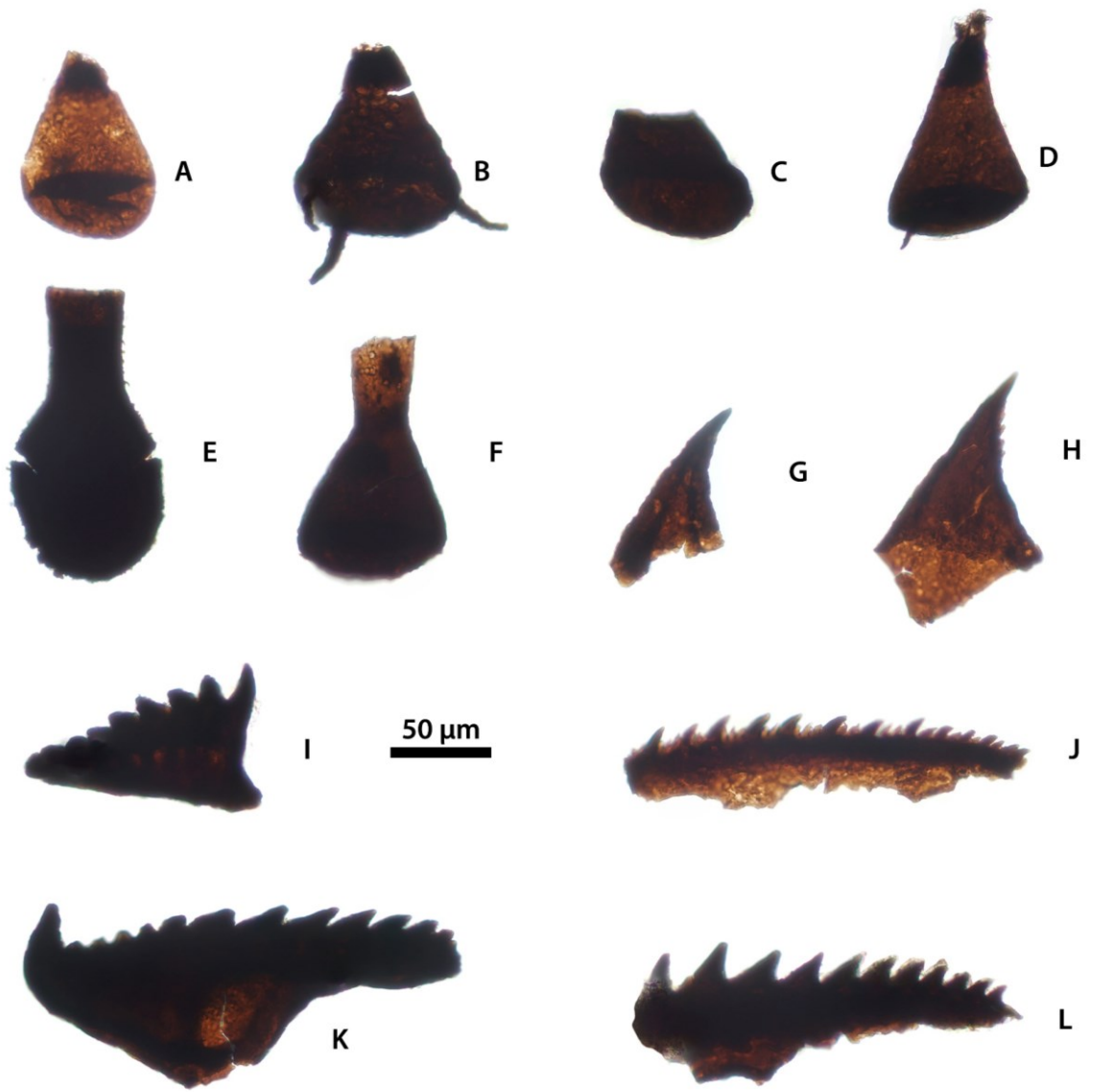


Fig. 10

Organic-walled microfossils of the Daleje Shale (Emsian, Devonian), locality Pod Dračí skálou.

A–C - *Leiosphaeridia* sp.

A - slide DB–DS2c, EF: U.41–4.

B - slide DB–DS2c, EF: G.40–2.

C - slide DB–DS2c, EF: Q.31–4.

D–H - *Navifusa* sp.

D - slide DB–DS2b, EF: G.39–4.

E - slide DB–DS2b, EF: Q.43–2.

F - slide DB–DS2b, EF: J.47–2.

G - slide DB–DS2a, EF: T.43–3.

H - slide DB–DS2c, EF: Q.43–1.

I–J - ?*Navifusa* sp.

I - slide DB–DS2b, EF: H.35–4.

J - slide DB–DS2a, EF: H.36–3.

K–N - ?*Tasmanites* sp.

K - slide DB–DS2b, EF: K.42–3.

L - slide DB–DS2b, EF: Q.38.

M - slide DB–DS2c, EF: M.48–3.

N - slide DB–DS2b, EF: V.37–1.

O–P - *Leiosphaeridia* sp.

O - slide DB–DS2b, EF: L.32–2.

P - slide DB–DS2c, EF: D.32–3.

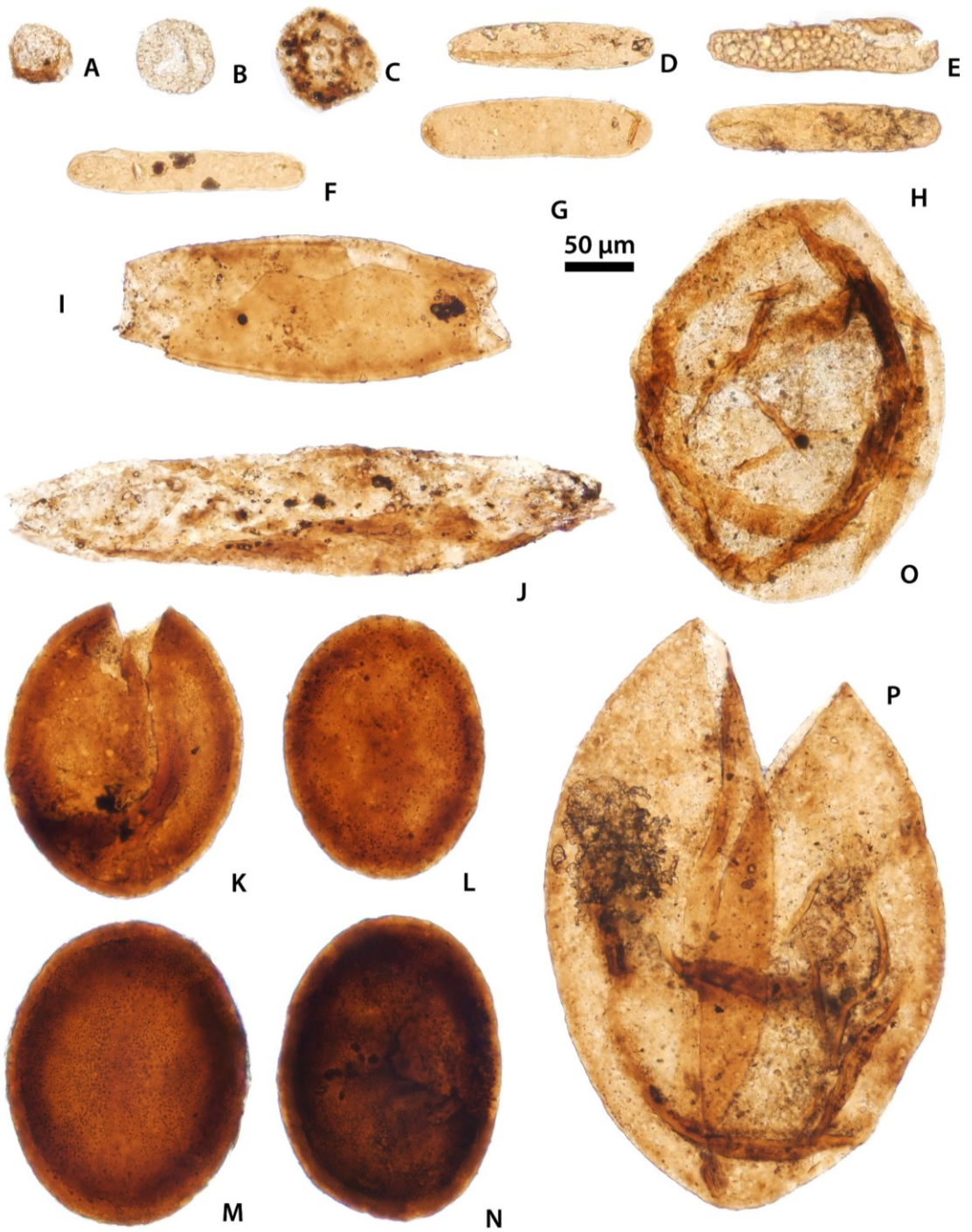


Fig. 11

Fossils of the Roblín Member (Givetian, Devonian), localities Hlubočepy (A–R) and Hostim (S–T).

A–C - ?*Grandispora* spp.

A - slide SS–ŽZ1, EF: L.32–3.

B - slide SS–ŽZ2d, EF: V.40–1.

C - slide SS–ŽZ2d, EF: U.39–4.

D - cryptospore - SS–ŽZ2d, EF: V.32–4.

E–G - undetermined spores.

E - slide SS–ŽZ2d, EF: T.31–3.

F - slide SS–ŽZ2c, EF: C.39–4.

G - slide SS–ŽZ2d, EF: W. 32–4.

H - cryptospore - slide SS–ŽZ2d, EF: U.27–3.

I–J - undetermined spores.

I - slide SS–ŽZ2c, EF: R.23–4.

J - slide SS–ŽZ2d, EF: P.45–4.

K–N - ?*Leiosphaeridia* sp.

K - slide HLUB–A1–02, EF: L.46–1.

L - slide HLUB–A1–01, EF: V.35–4.

M - slide HLUB–A1–04, EF: F.51–4.

N - slide HLUB–A1–03, EF: E.48–2.

O - fusiform acritarch - slide SS–ŽZ2c, EF: N.41–2.

P–R - ?*Leiosphaeridia* sp.

P - slide HLUB–A1–04, EF: W.42–1.

Q - slide HLUB–A1–04, EF: E.48–2.

R - slide HLUB–A1–03, EF: G.37–2.

S - plant fragment - slide SS–HZ1a, EF: M.54–3.

T - ?*Leiosphaeridia* sp. - slide SS–HZ1a, EF: V.33–1.

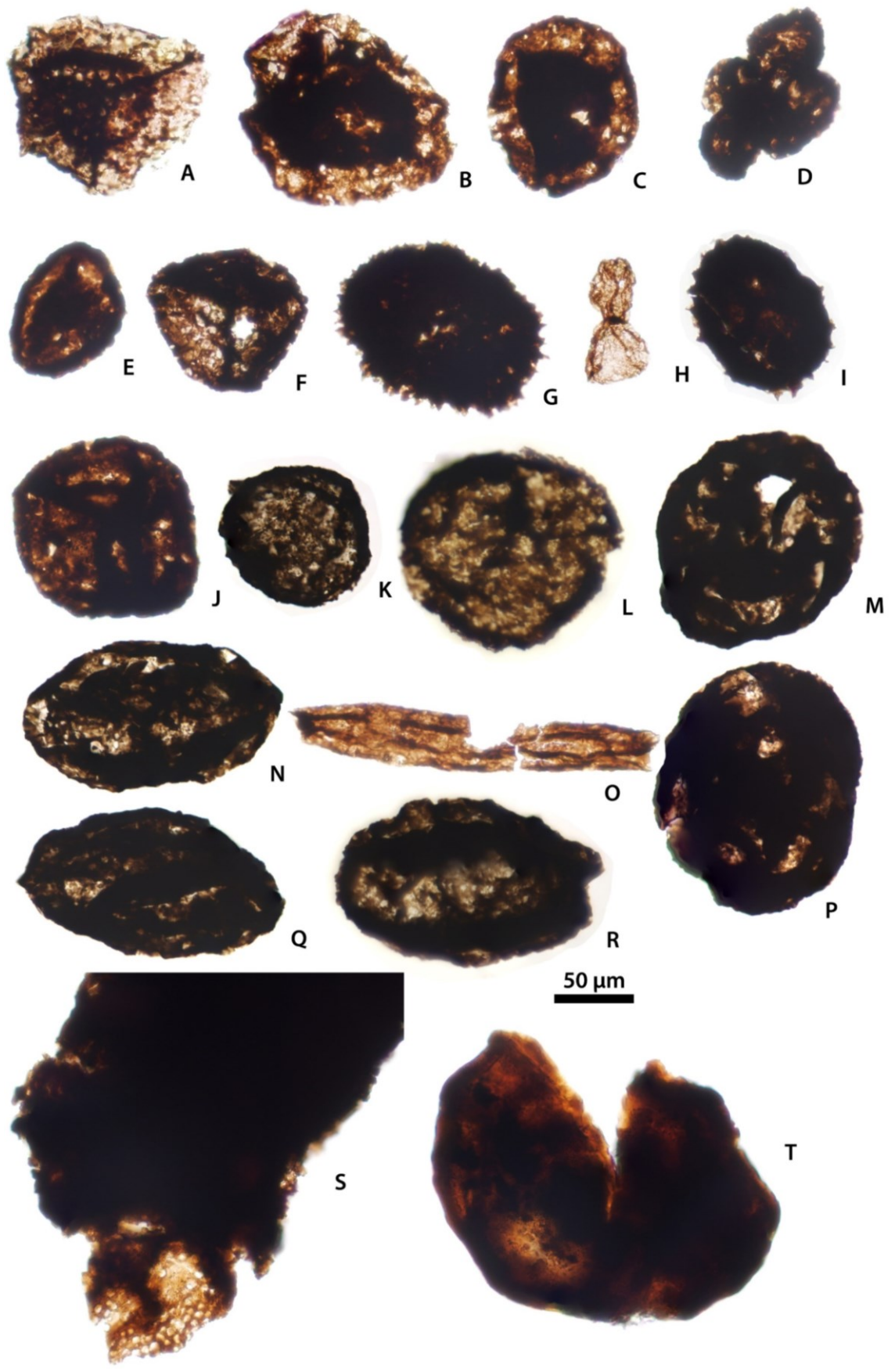


fig. 1–2

Fossils of the Roblín Member (Givetian, Devonian), locality Hlubočepy.

A–F - Undetermined fragments of scolecodonts.

A - slide HLUB–A1–02, EF: W.42–1.

B - slide HLUB–A1–03, EF: L.46–1.

C - slide SS–ŽZ2d, EF: U.39–4.

D - slide HLUB–A1–04, EF: W.25–4.

E - slide SS–ŽZ1a, EF: Y.42–1.

F - slide SS–ŽZ1a, EF: G.44–2.

G - Undetermined chitinozoan - slide SS–ŽZ2d, EF: P.34–1.

H – K - putative metazoan remains

H - slide SS–ŽZ2d, EF: N.42–3.

I - slide SS–ŽZ2d, EF: H.38–2.

J - slide SS–ŽZ2b, EF: W.49–1.

K - slide HLUB–A1–01, EF: N.37–4



fig. 13

Fluoritised tentaculites from the Daleje Shale (Eifelian, Devonian), locality Pod Dračí skálou. - Scale bar represents 500 μm .

A - stub DB-DS01.

B - stub DB-DS01-02.

C - stub DB-DS01-02.

D - stub DB-DS01-02.

E - stub DB-DS01-02.

F - slide SS-ŽZ1bl, EF: T.43-2.

G - slide SS-ŽZ1bl, EF: Q.41-1.

H - slide SS-ŽZ1bl, EF: U.46-2.

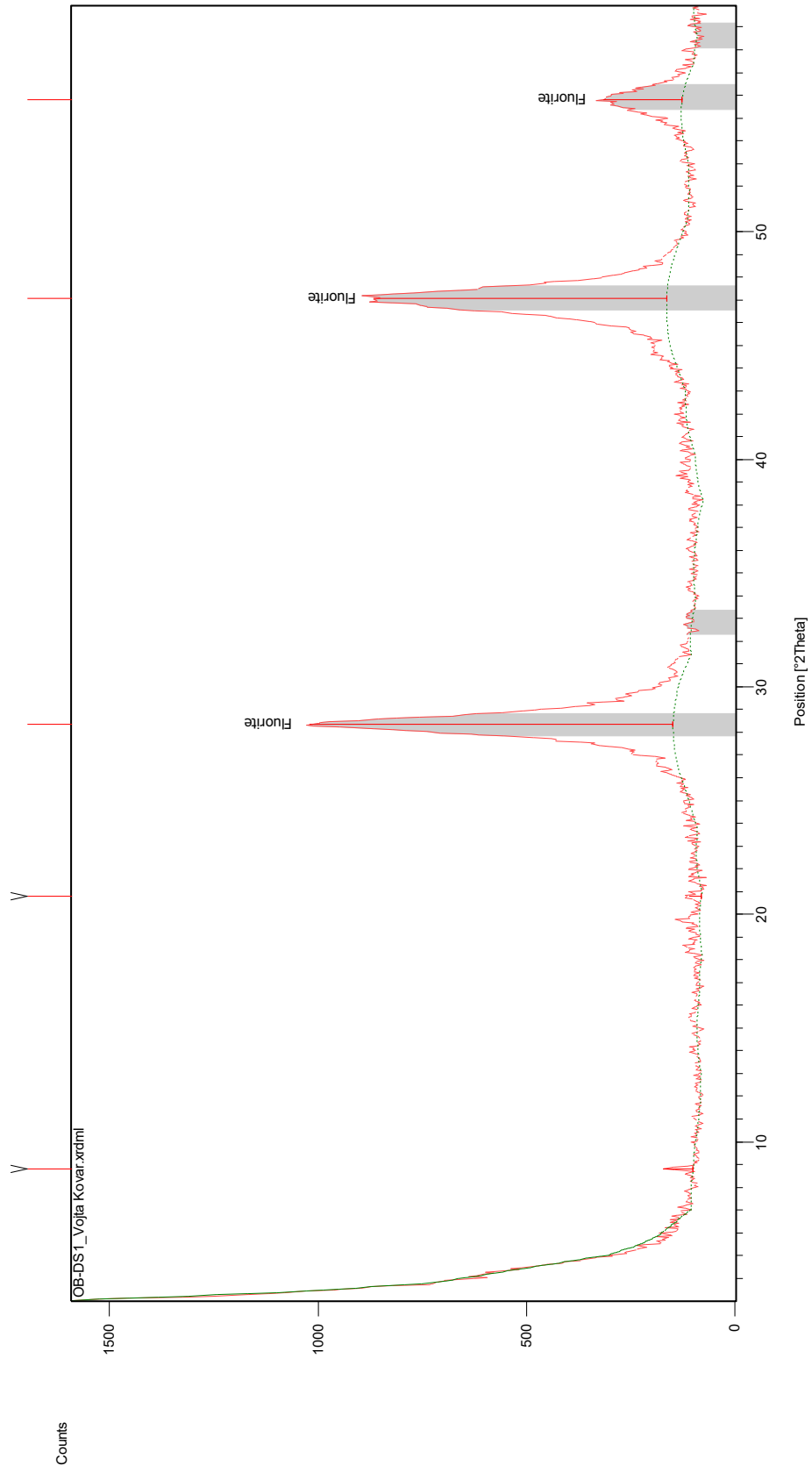
Fluoritised fragment of tentaculite from the Roblín Member (Givetian, Devonian), locality Hlubočepy. - Scale bar represents 100 μm .

I - slide SS-ŽZ2d, EF: V.29-2.



fig. 14

Results of the X-Ray diffraction of fluoritised tentaculite from the Daleje Shale.



Appendix 1 – List of Recovered Fossil Groups and Taxa

Cambrian

Paseky Shale Member

Remains of metazoan affinity

?*Ceratophyton* sp.

?*Protohertzina* sp.

Bilateralian mouthparts.

Remains of probable algal affinity – acritarchs *s.l.*

Leiosphaeridia sp.

Remains of probable algal affinity – non-acritarchs

Botuobia sp.

Polytrichoides sp.

Siphonophycus spp.

Remains of probable plant affinity

Undetermined cryptospores

Jince Formation

Remains of metazoan affinity

Wiwaxia sp.

Remains of probable algal affinity – acritarchs *s.l.*

Adara sp.

?*Annulum* sp.

Cymatiosphaera sp.

Eliasum sp.

Leiosphaeridia spp.

Skiagia sp.

?*Stictosphaeridium* sp.

Timofeevia sp.

Remains of probable algal affinity - non-acritarchs

Undetermined filaments

Remains of probable plant affinity

Undetermined cryptospores

Ordovician

Letná Formation

Remains of metazoan affinity – scolecodonts

Undetermined scolecodonts

Remains of probable metazoan affinity – chitinozoa

?*Belonechitina* sp.

Conochitina sp.

Cyathochitina sp.

Desmochitina sp.

Euconochitina sp.

Linochitina sp.

Remains of probable metazoan affinity

Undetermined cuticles

Remains of probable algal affinity – acritarchs s.l.

Ordovicidium sp.

?*Leiosphaeridia* sp.

Veryhachium sp.

Kosov Formation

Remains of metazoan affinity – scolecodonts

Paulinitidae

Undetermined scolecodonts

Remains of probable metazoan affinity – chitinozoa

Conochitina sp.

Cyathochitina sp.

Euconochitina sp.

?*Spinachitina* sp.

Remains of probable algal affinity – acritarchs s.l.

?*Leiosphaeridia* sp.

Remains of probable algal affinity – non-acritarchs

Pseudocelular cuticles

Remains of probable plant affinity

Undetermined tubular fossil

Devonian

Daleje Shale Member

Remains of metazoan affinity – scolecodonts

Paulinitidae

Polychaetaspidae (?*Oenonites* sp.)

Remains of metazoan affinity

Undetermined tentaculitoids

Undetermined trilobites

Undetermined brachiopods

Remains of probable metazoan affinity – chitinozoa

Ancyrochitina sp.

Angochitina sp.

?*Sphaerochitina* sp.

Remains of probable algal affinity – acritarchs s.l.

?*Leiosphaeridia* sp.

Navifusa sp.

Tasmanites sp.

Srbsko Formation

Remains of metazoan affinity – scolecodonts

Undetermined scolecodonts

Remains of metazoan affinity – tentaculitoids

Undetermined tentaculitoids

Remains of probable metazoan affinity – chitinozoa

Undetermined chitinozoa

Remains of probable metazoan affinity

?fragments of arthropod cuticles

Undetermined fragments

Remains of probable algal affinity – acritarchs *s.l.*

?*Leiosphaeridia* spp.

Undetermined fusiform acritarch

Remains of plant affinity

?*Grandispora* sp.

Undetermined cryptospores

Undetermined spores

Undetermined plant debris