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Figure 1

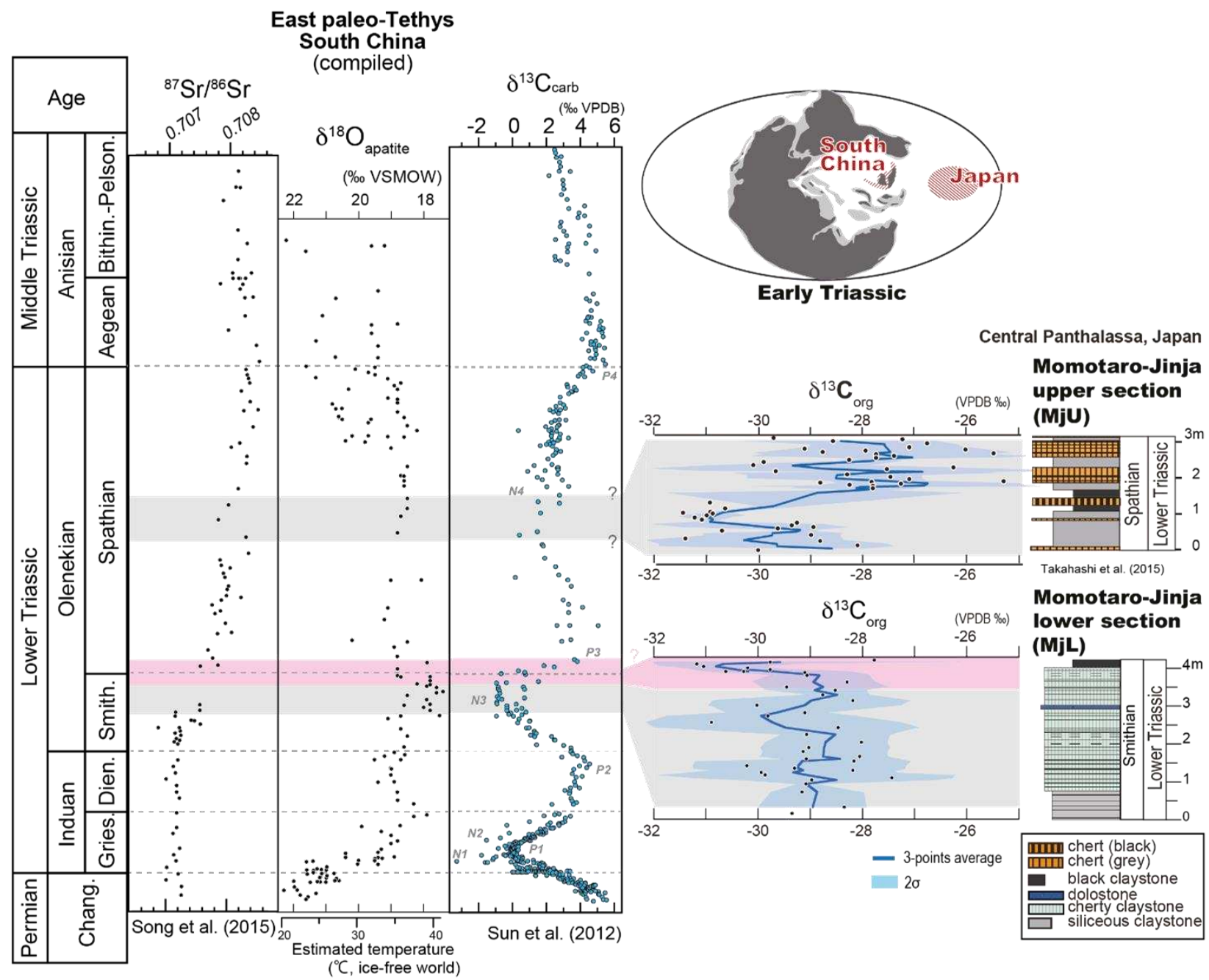


Figure 2

Fig. 2

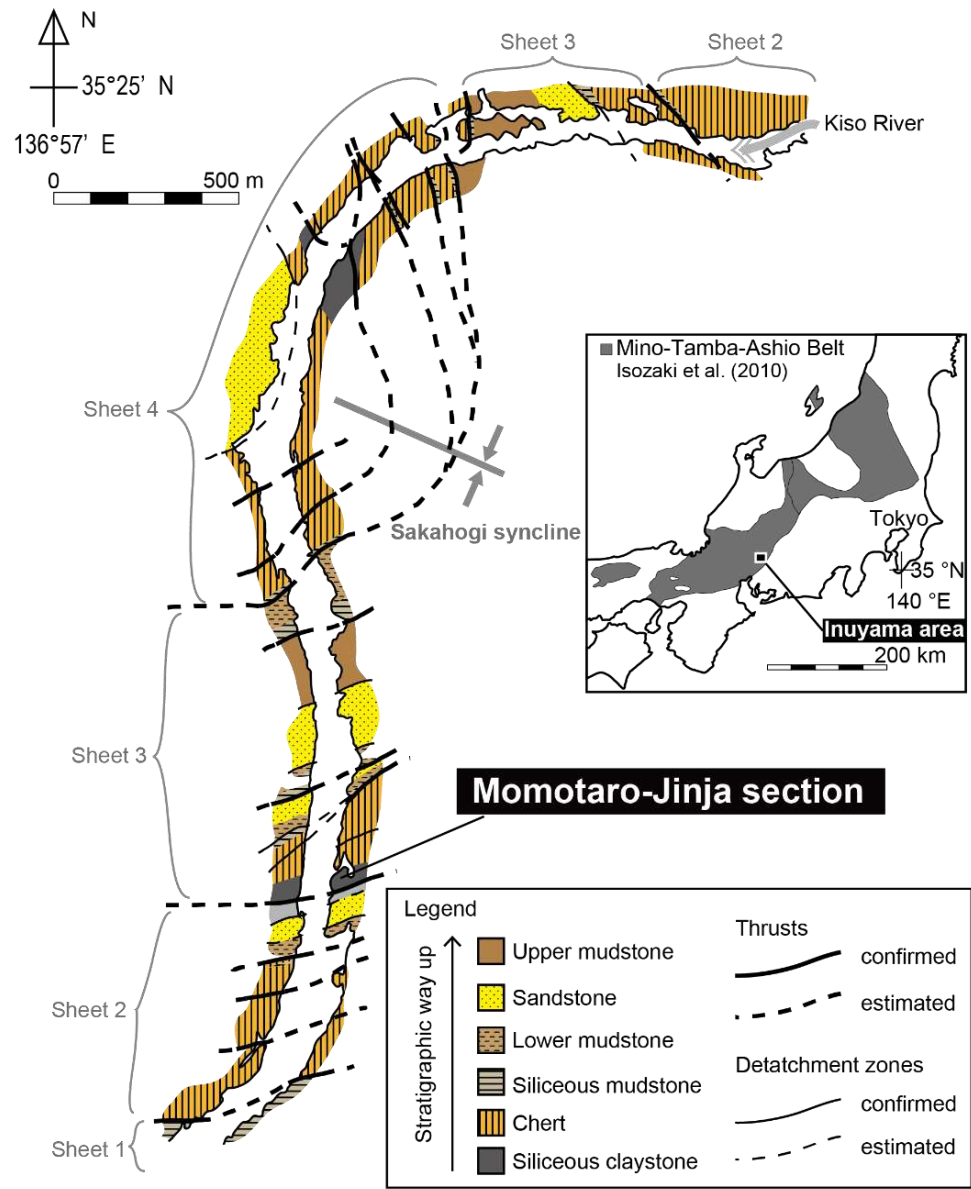


Figure 3

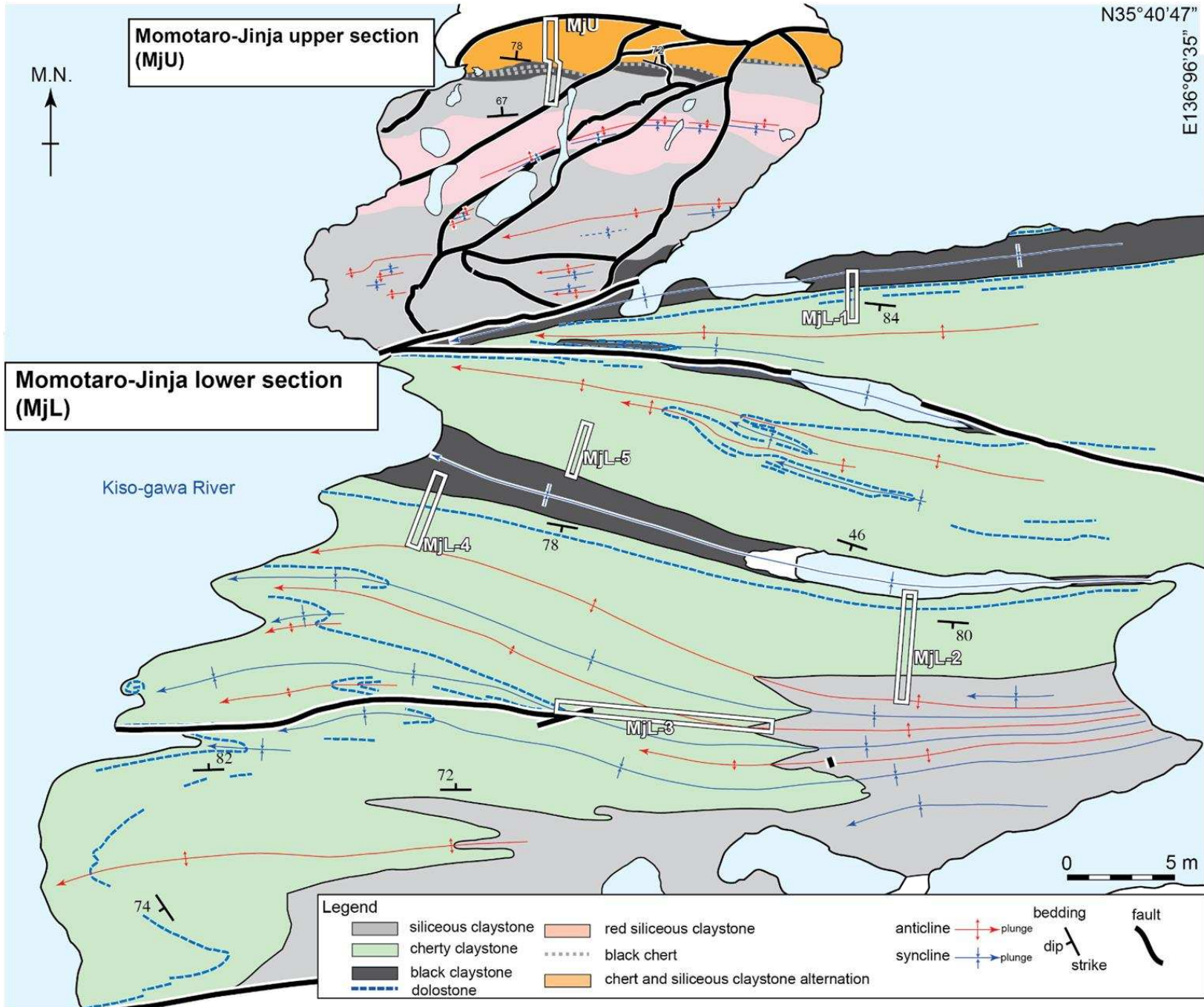


Figure 4

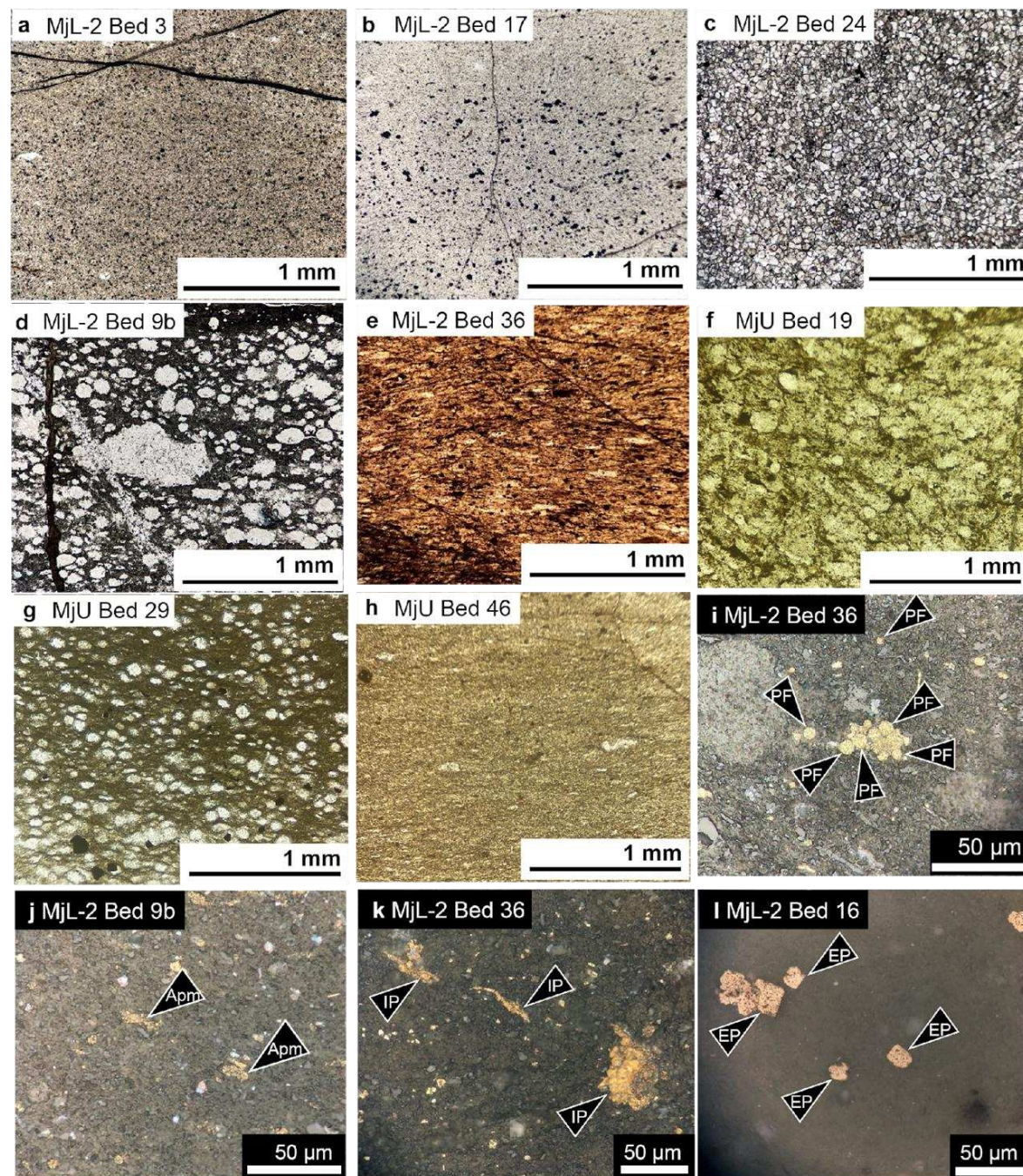


Figure 5

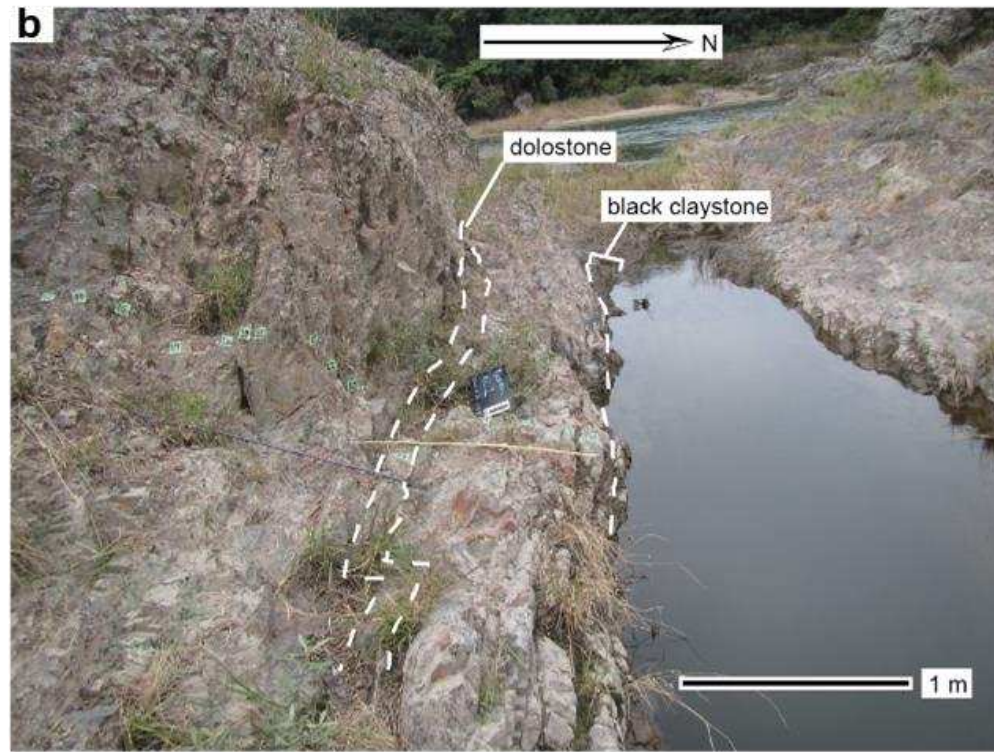
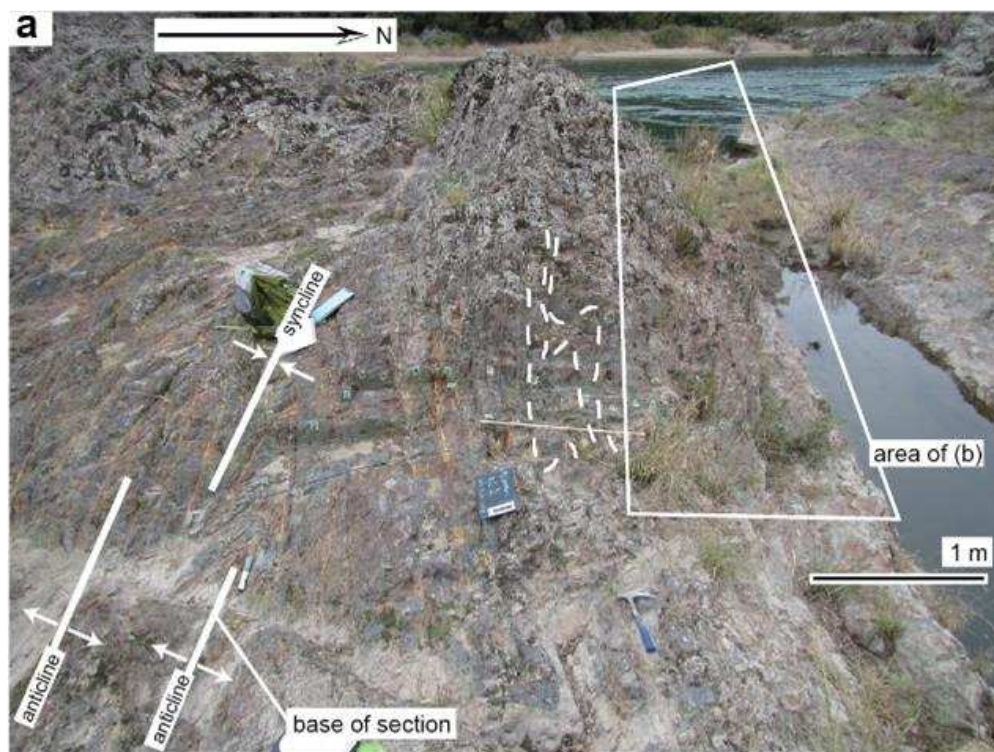


Figure 6

Momotaro-Jinja
lower section (MjL)

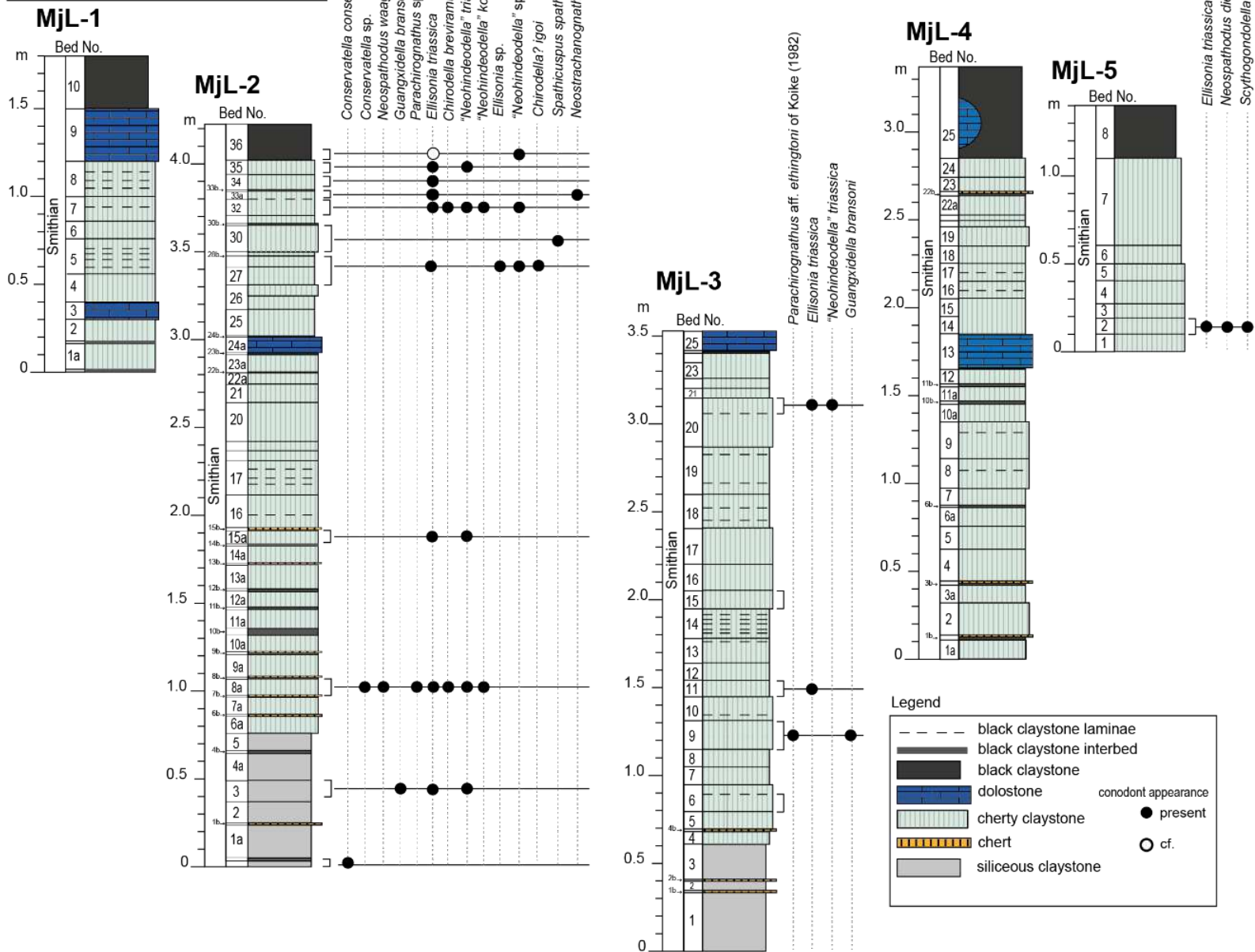


Figure 7

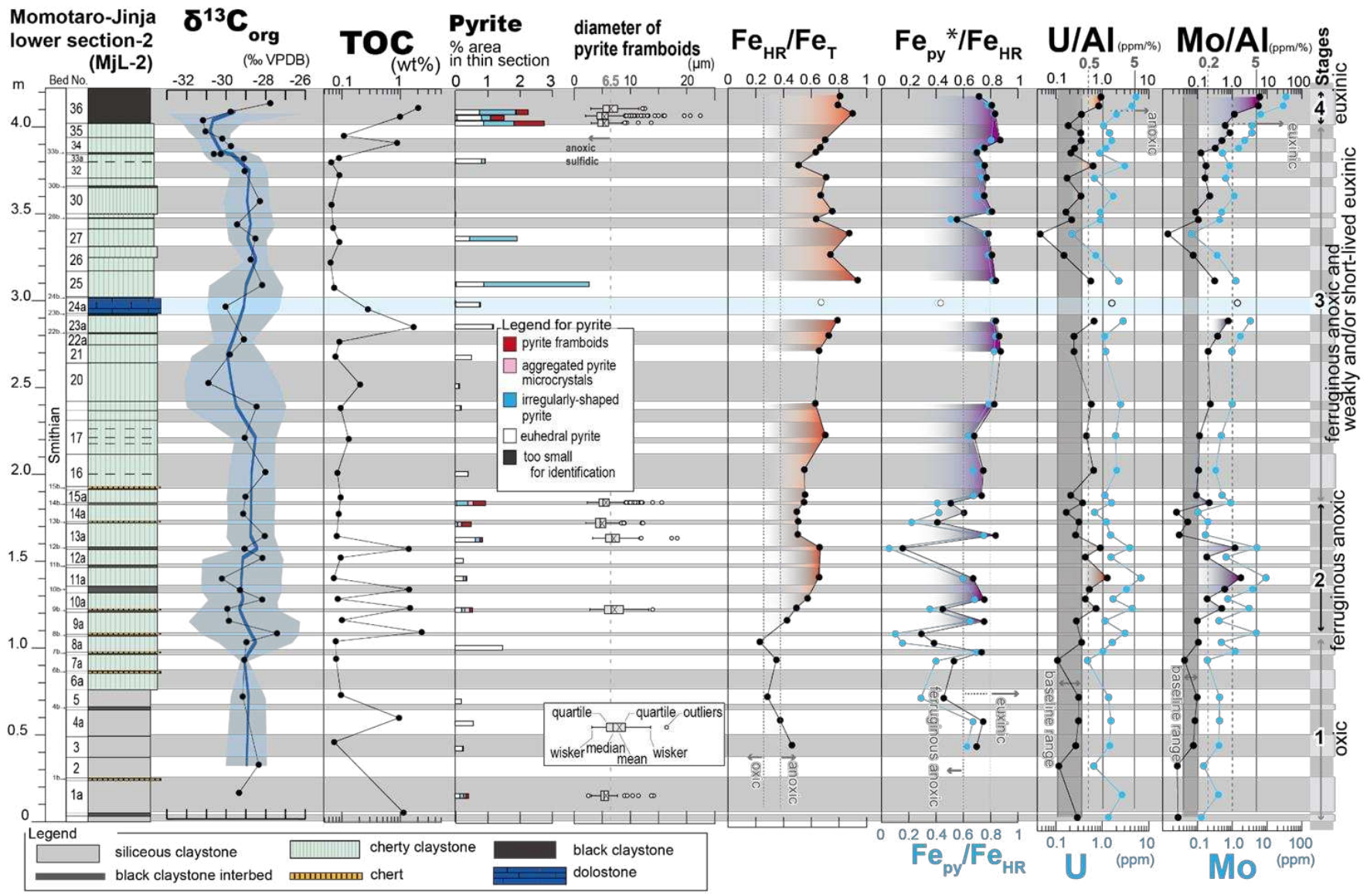


Figure 8

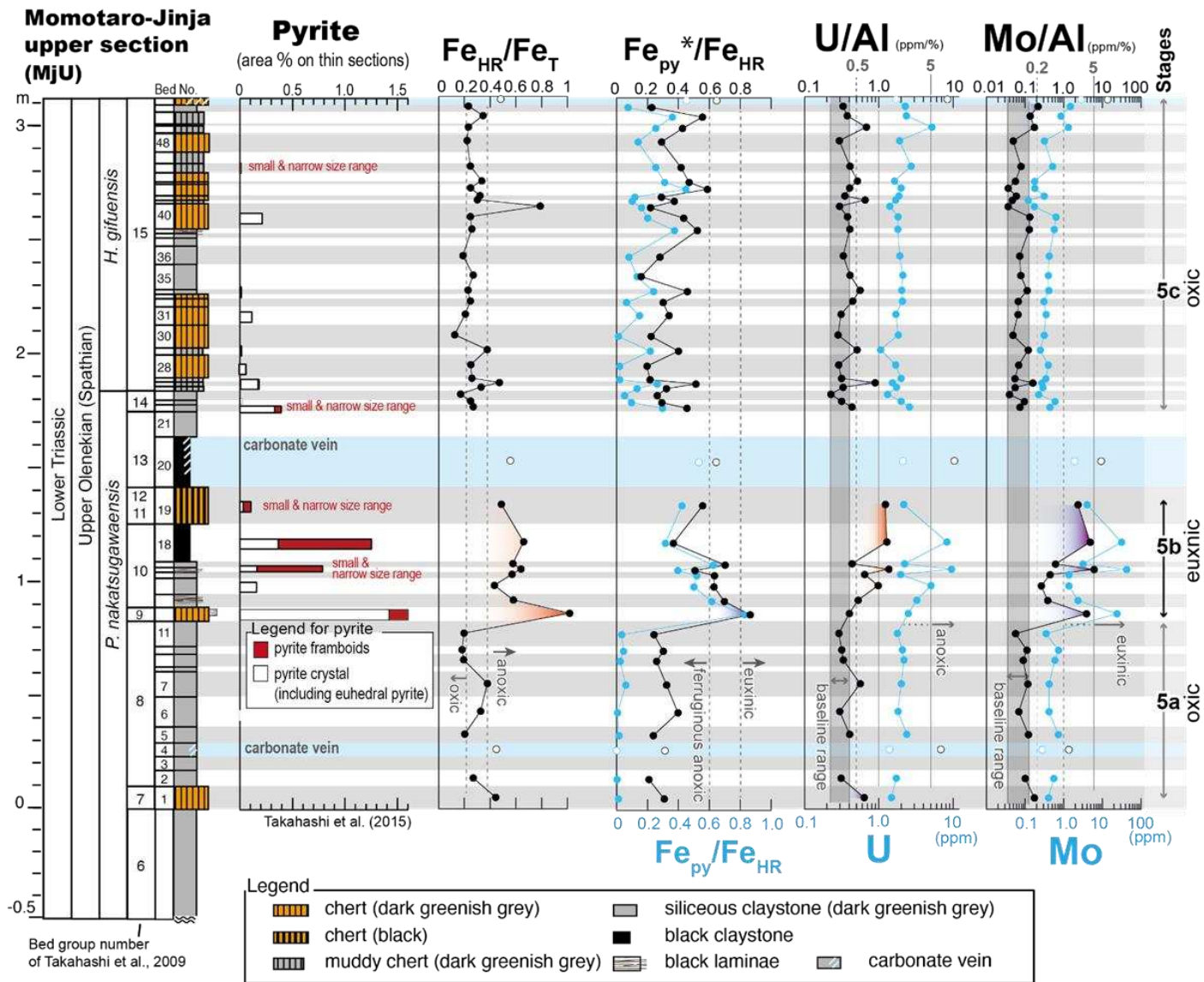


Figure 9

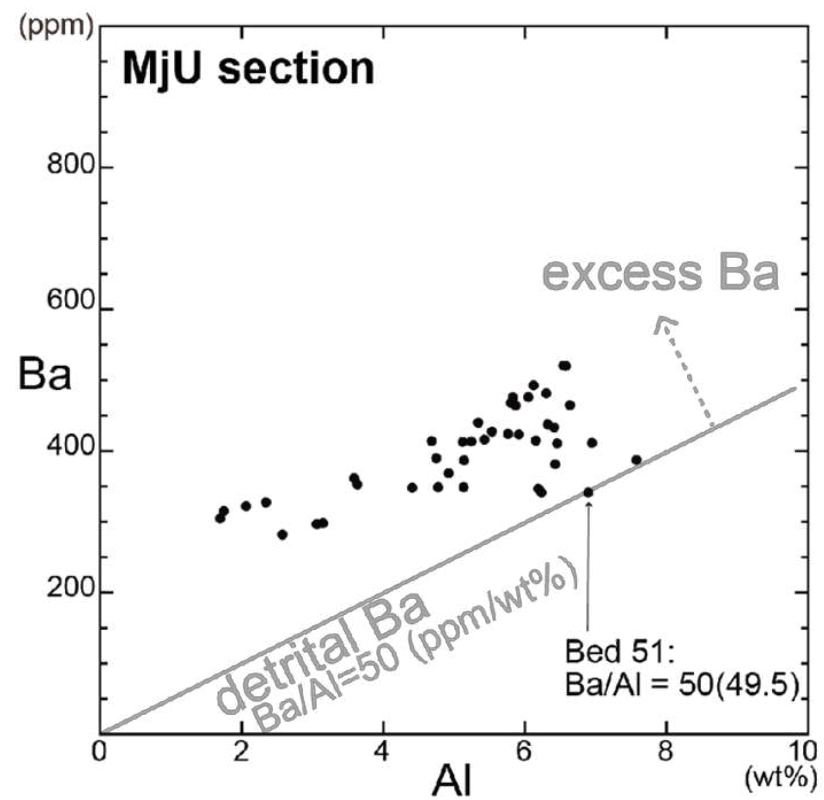
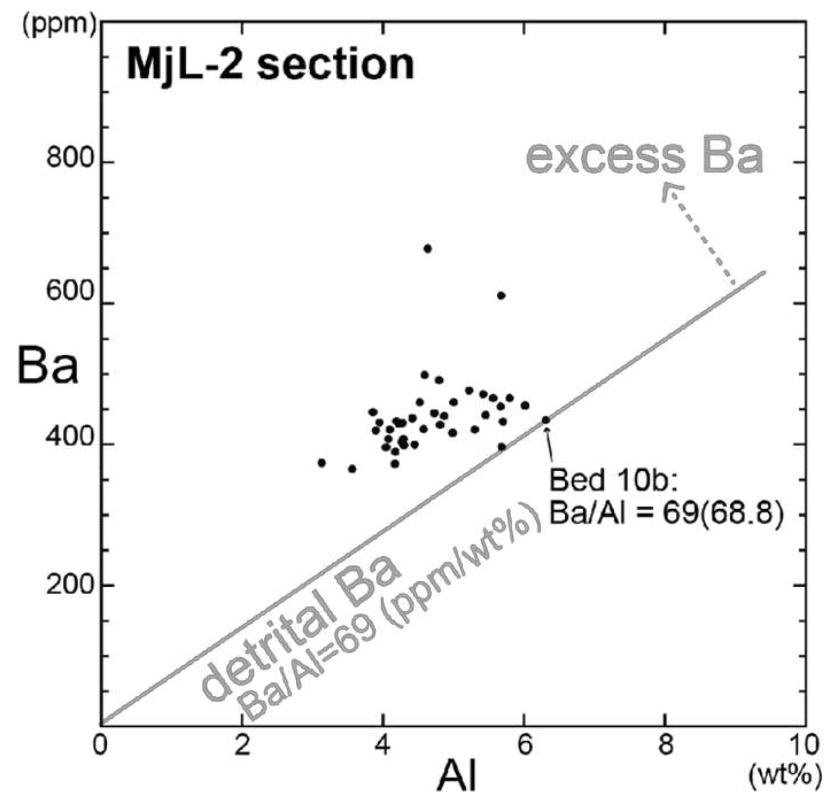


Figure 10

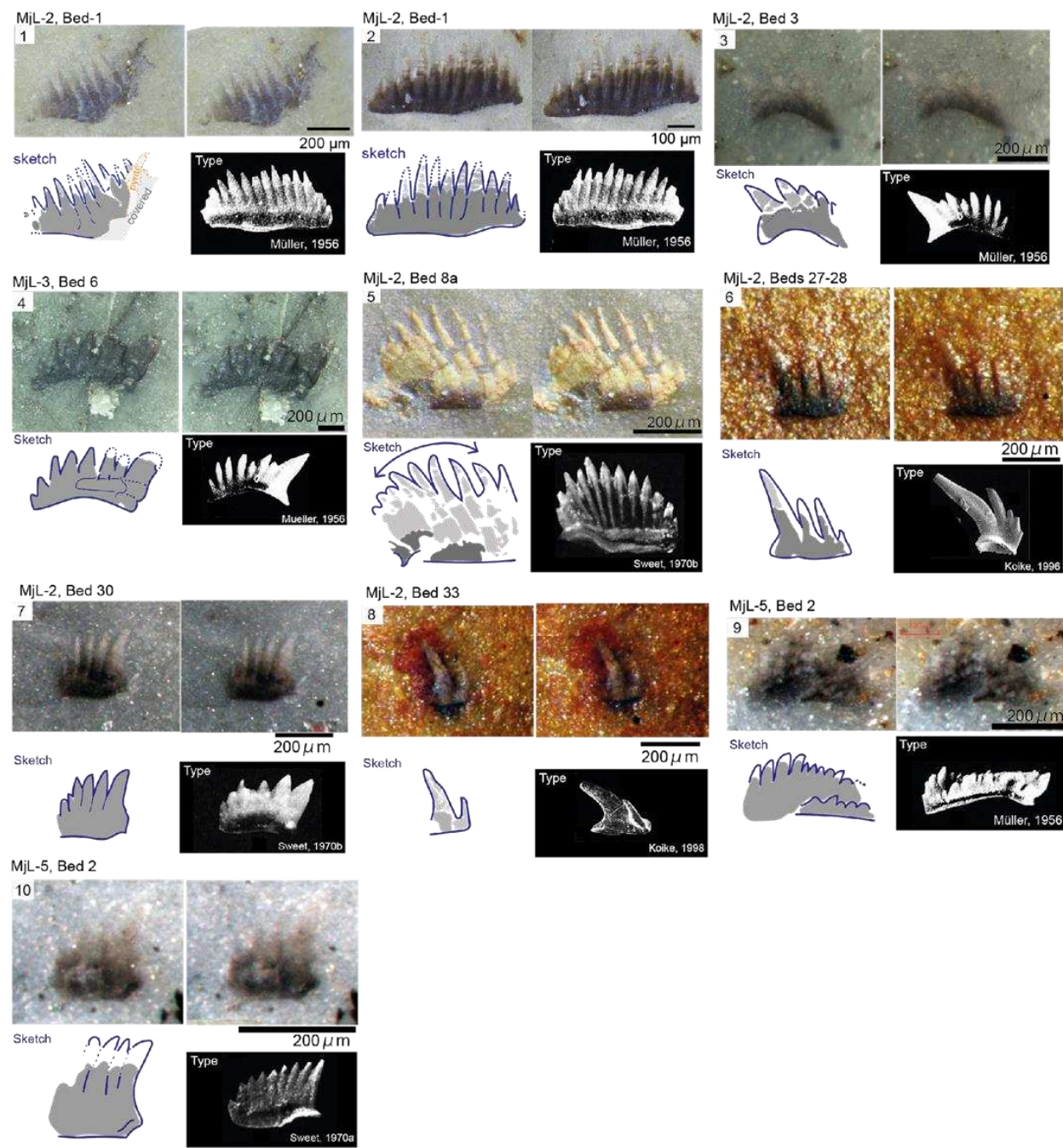


Figure 11

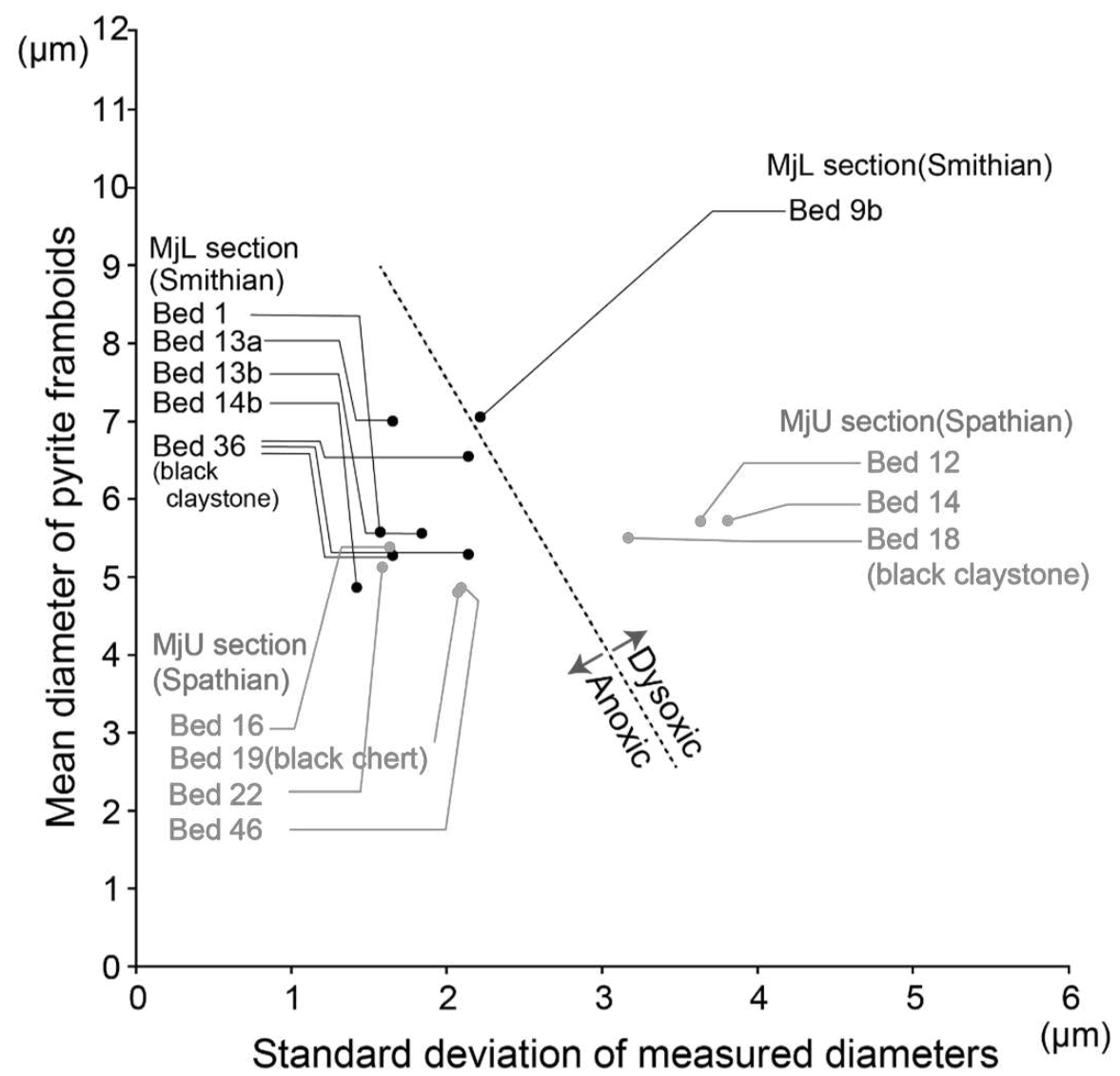


Figure 12

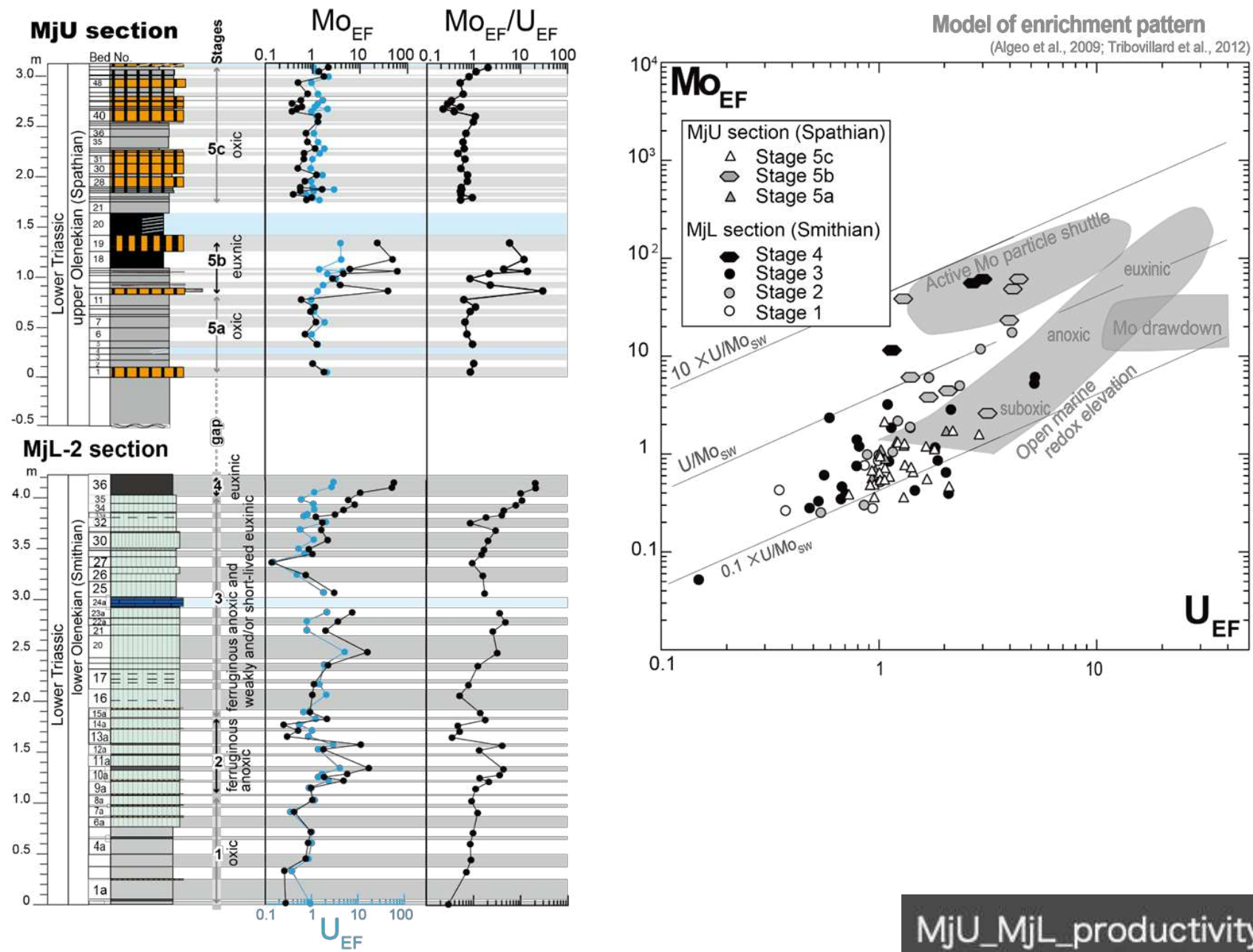
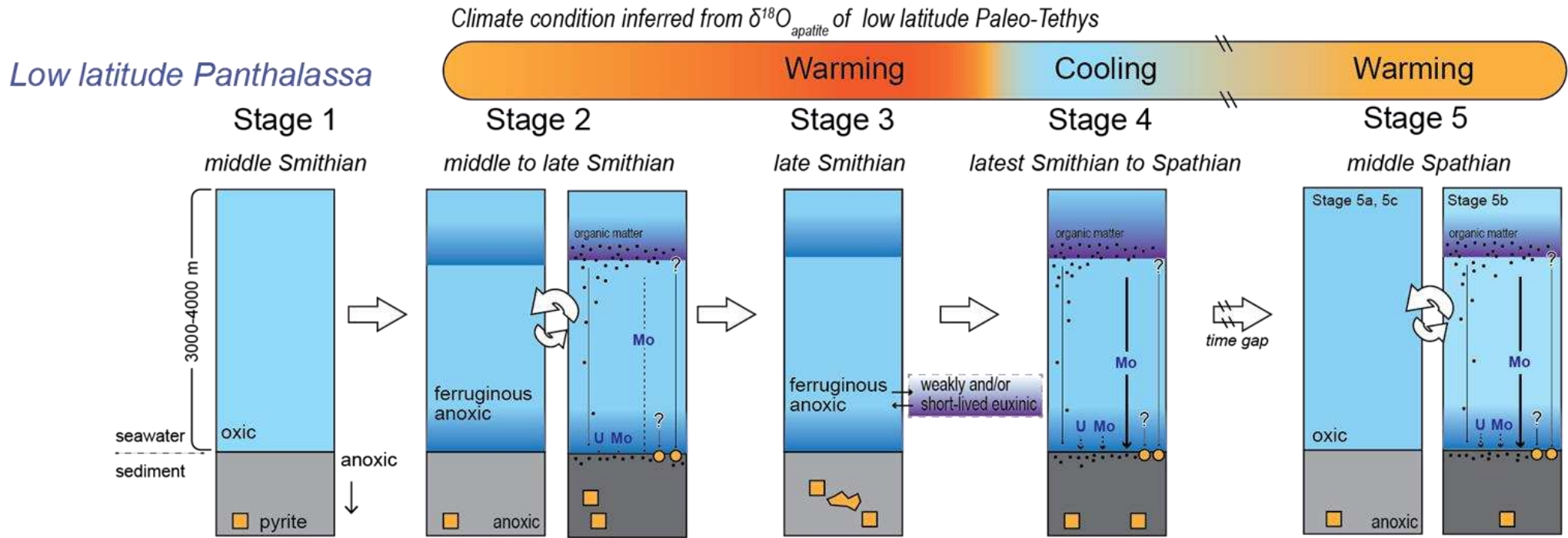


Figure 13



Redox indicators

Small pyrite framboids	no	no	abundant	few	abundant	no	abundant
$\text{Fe}_{\text{HR}}/\text{Fe}_{\text{T}}$	low		high	high		low	high
$\text{Fe}_{\text{py}}/\text{Fe}_{\text{HR}}$	—	low	int.	high		low	high
U/Al	low	low	int.	low		int.	int.
Mo/Al	low	low	int.	int.		high	high
$\text{Mo}_{\text{EF}}/\text{U}_{\text{EF}}$	low	low	int.	low		high	high

Figure 14

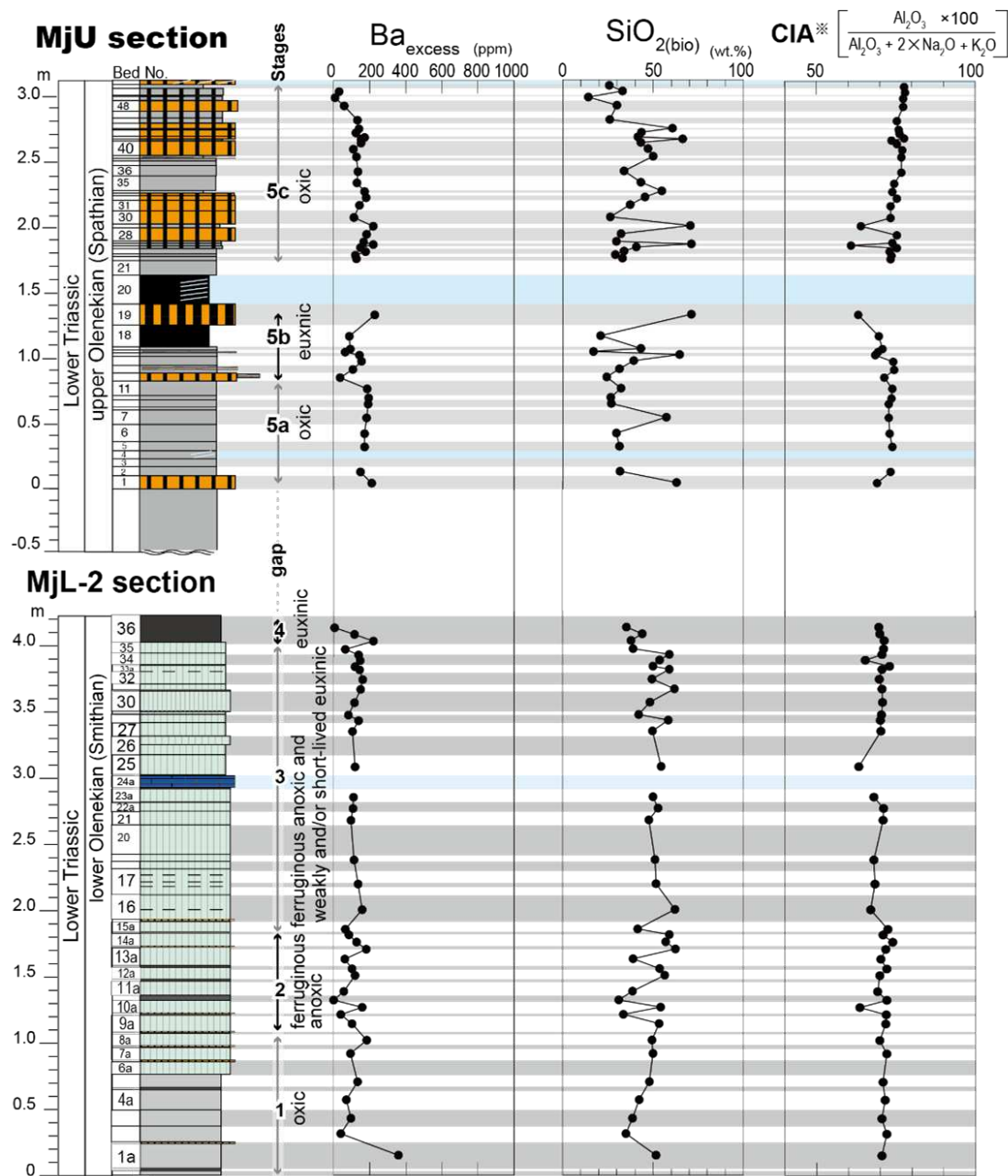


Figure 15

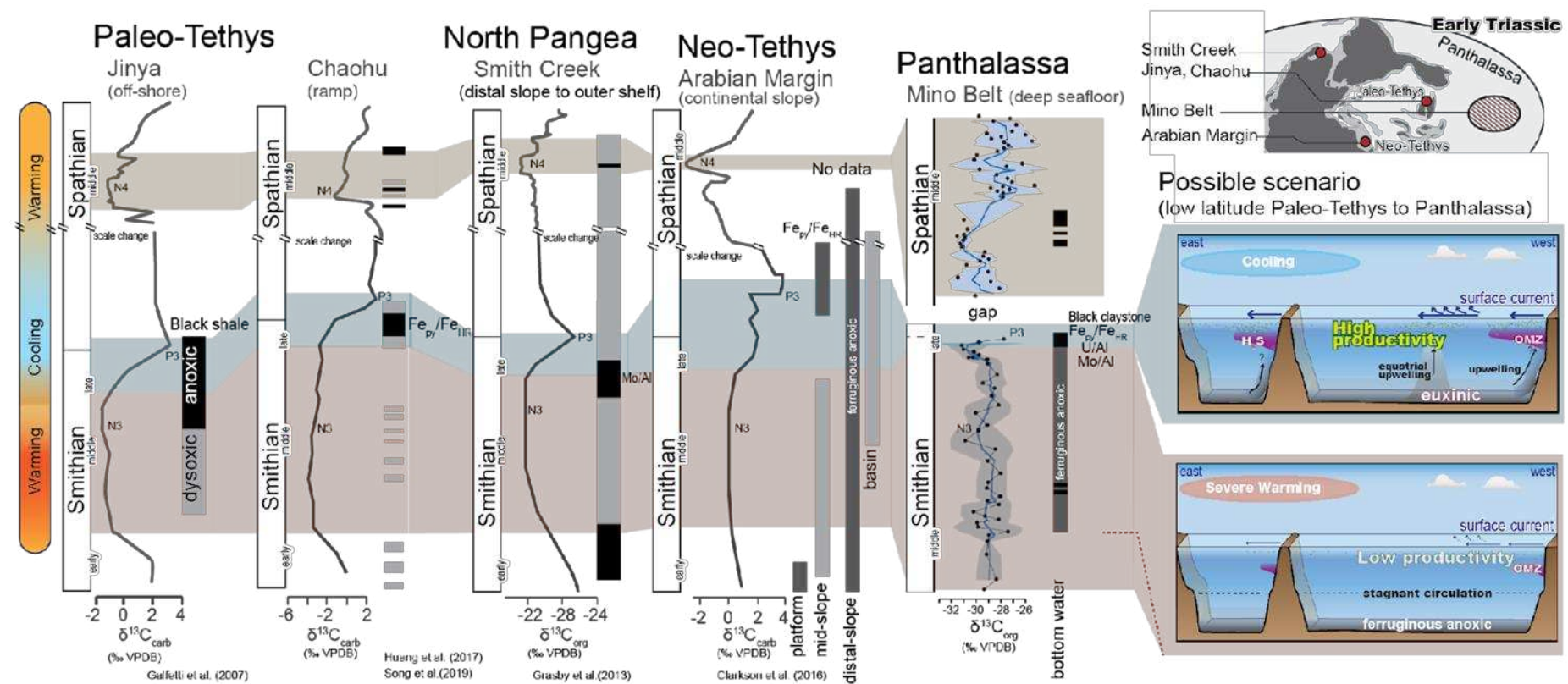


Figure S1.

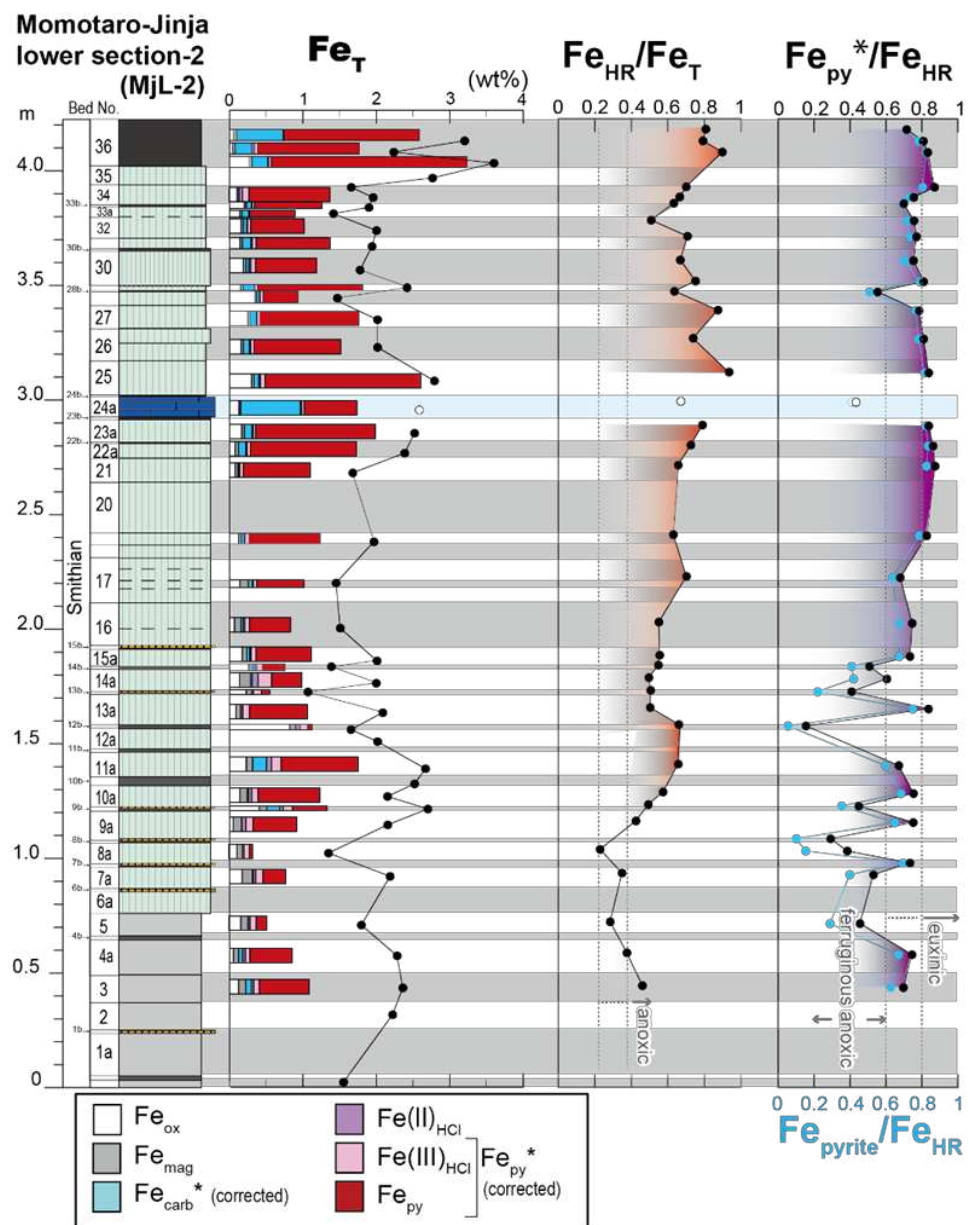


Figure S2

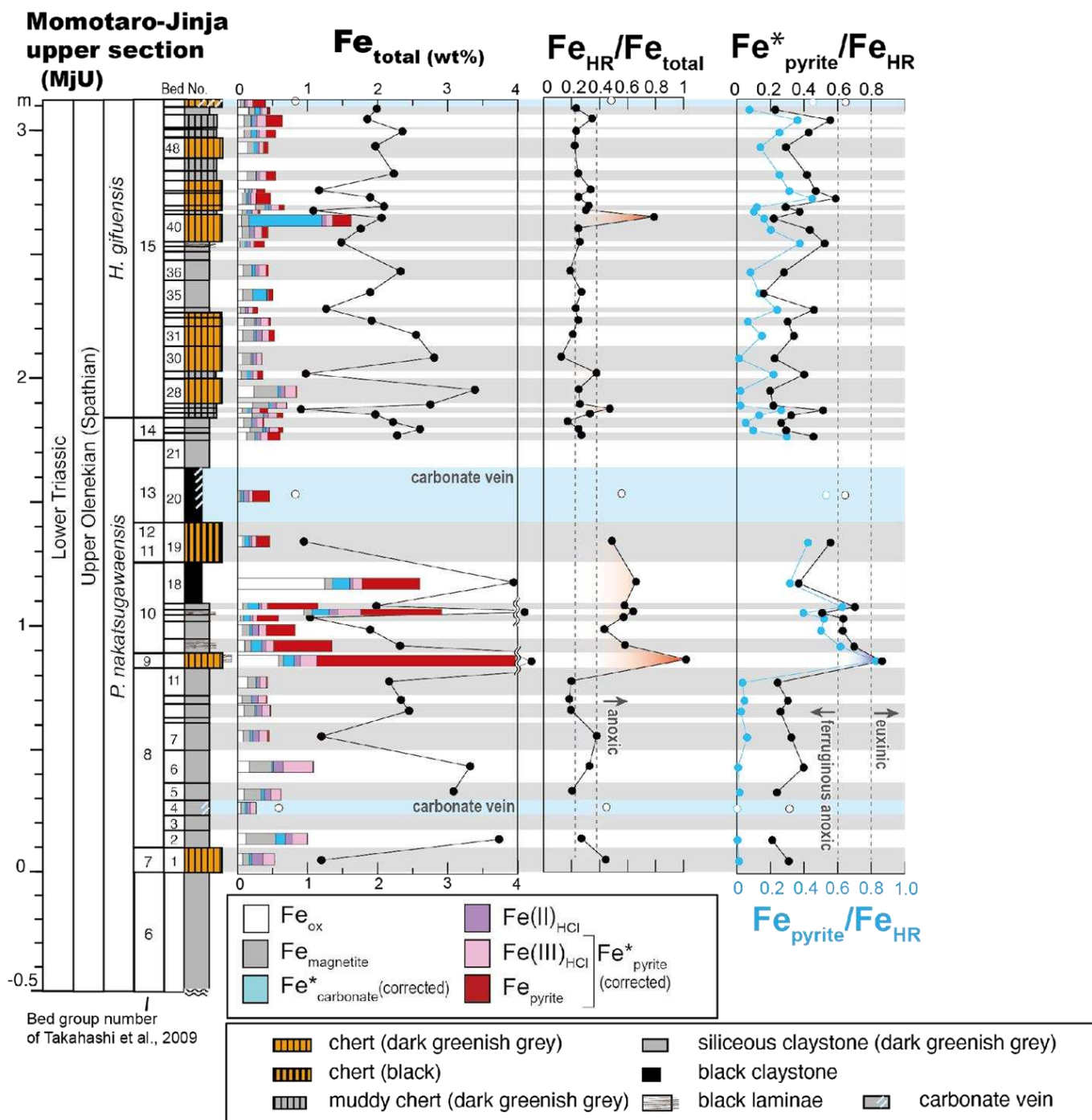
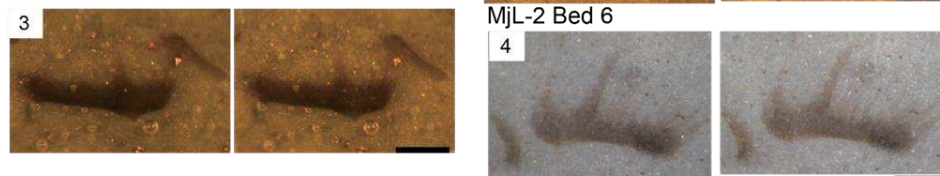
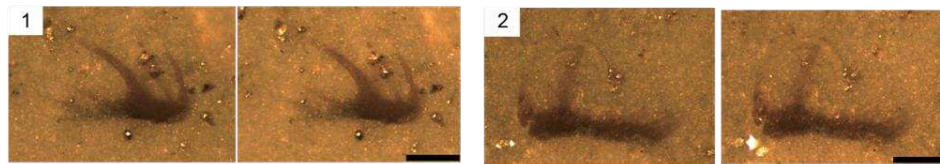


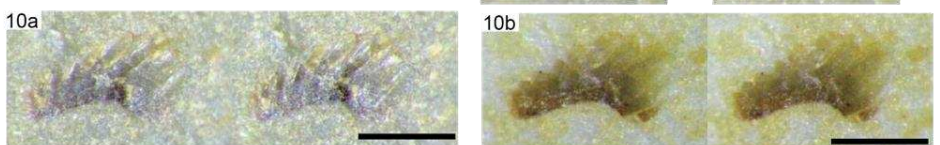
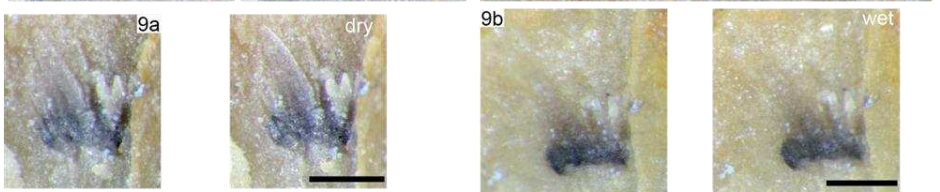
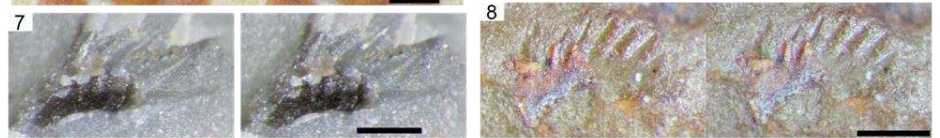
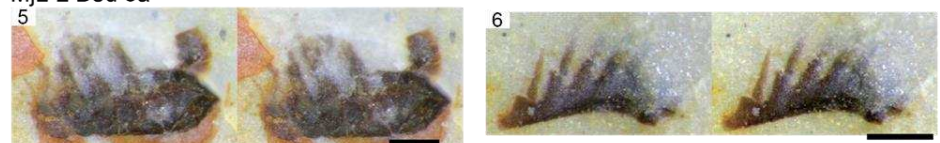
Figure S3

MjL-2 Bed 3

Scale bars : 200µm



MjL-2 Bed 8a



1: *Ellisonia triassica* S4 element, 2-4: "*Neohindeodella*" *triassica*, 5: *Conservatella* sp.? 6: *Conservatella* P2 element, 7: *Parachirognathus* sp. 8: *Parachirognathus* sp. ?, 9-11: *Chirodella breviramulis*. All figures are normally arranged pairs.

Figure S4
MjL-2 Bed 8

Scale bars : 200µm

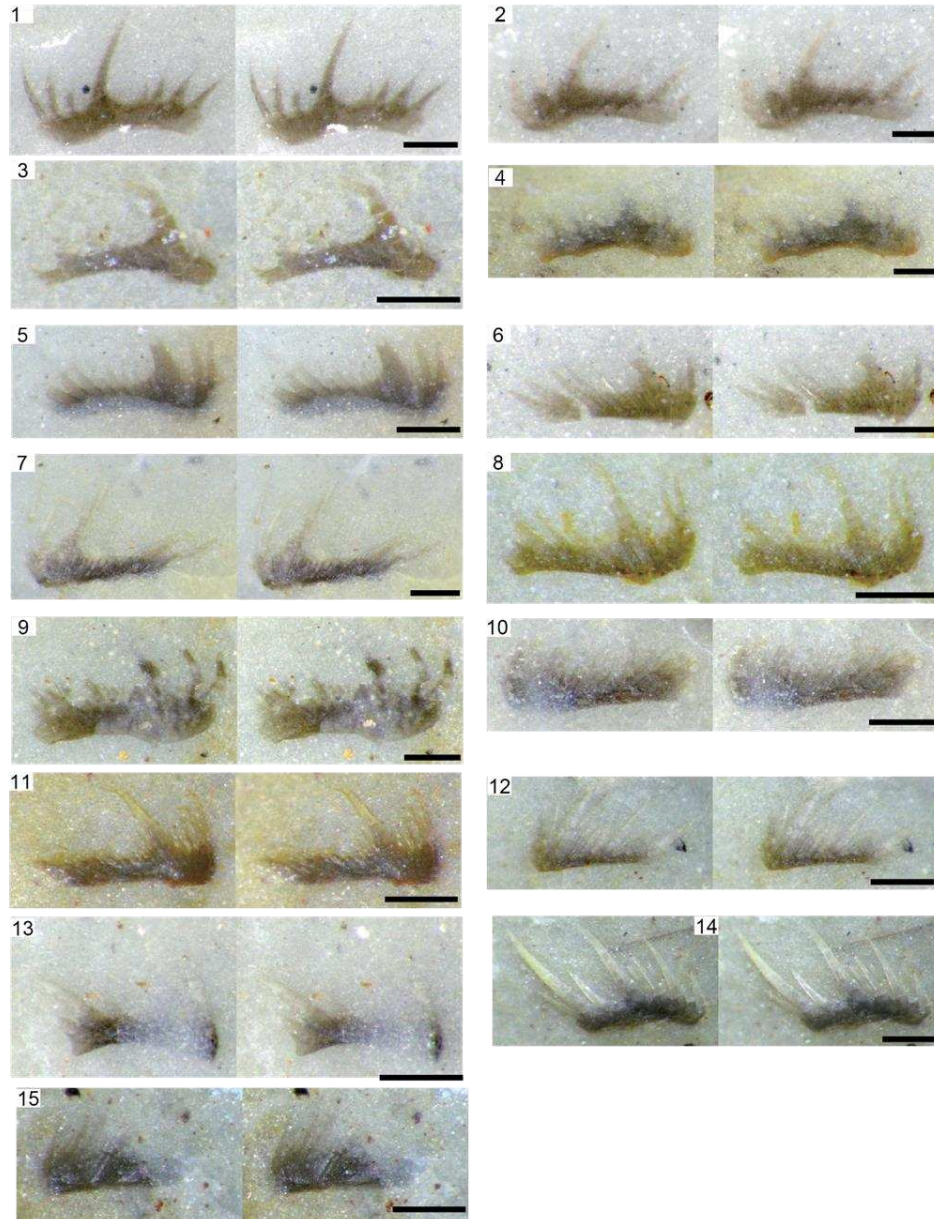
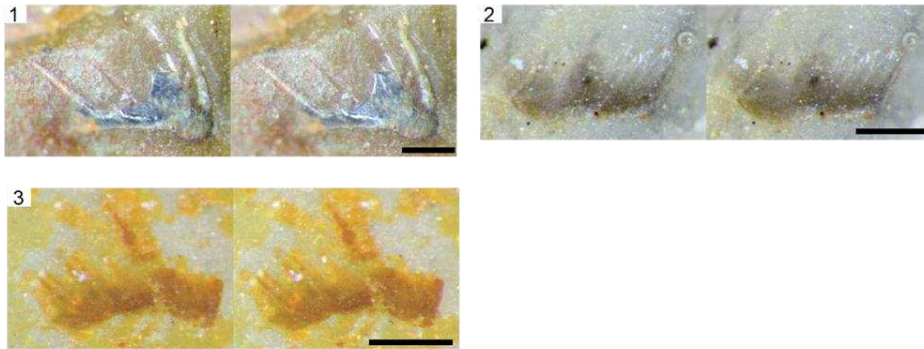
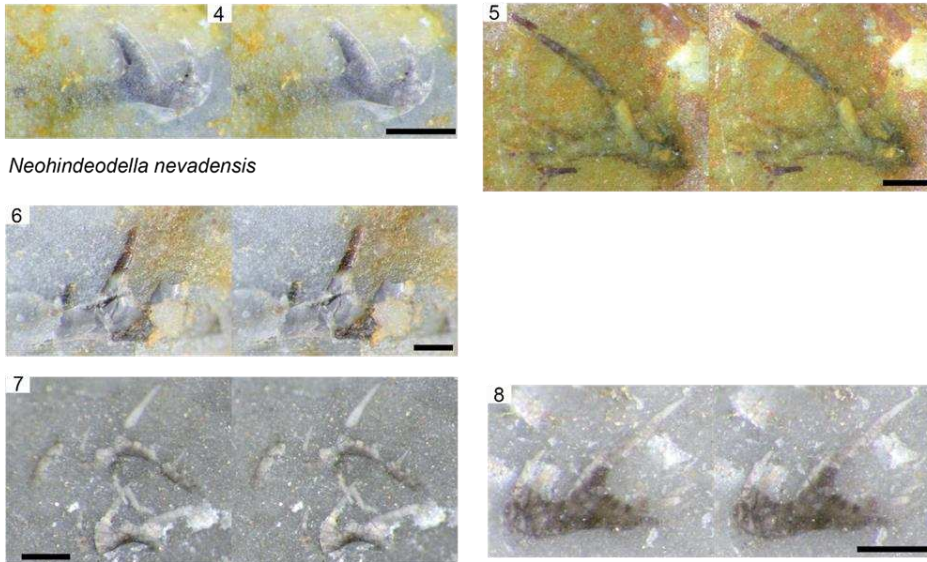


Figure S5
MjL-2 Bed 15

Scale bars : 200µm



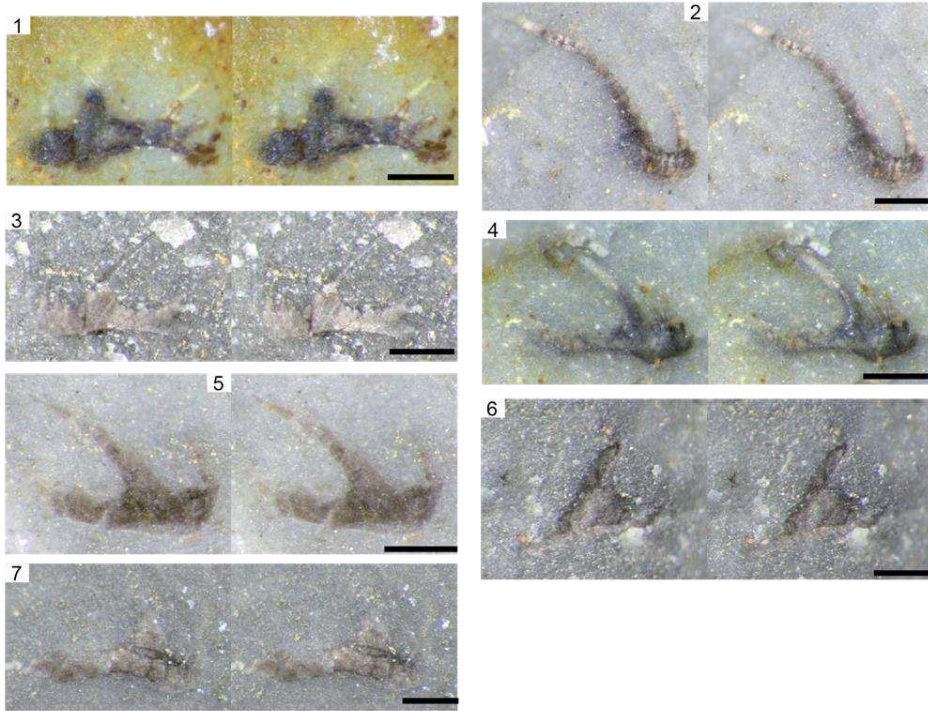
MjL-2 Bed 27



1,5: *Ellisonia triassica* S4 element, 2: "*Neohindeodella*" *triassica* 3: "*Neohindeodella*" sp. 4: *Ellisonia triassica* S3 element, 6: *Ellisonia* sp., 7-8: "*Neohindeodella*" sp. All figures are normally arranged pairs.

Figure S6
MjL-2 Bed 32

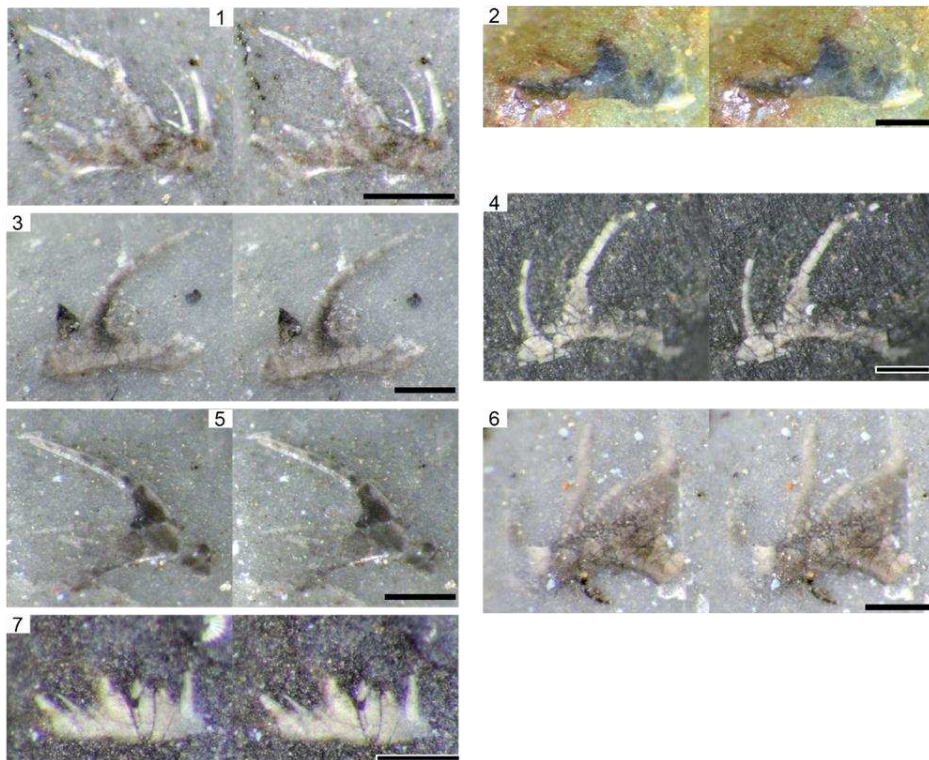
Scale bars : 200µm



1: *Ellisonia triassica* S3 element, 2: *Ellisonia triassica* S4 element, 3: "*Neohindeodella*" *triassica* 4: "*Neohindeodella*" *kobayashii*, 5-7: "*Neohindeodella*" sp. All figures are normally arranged pairs.

Figure S7
MjL-2 Bed 33

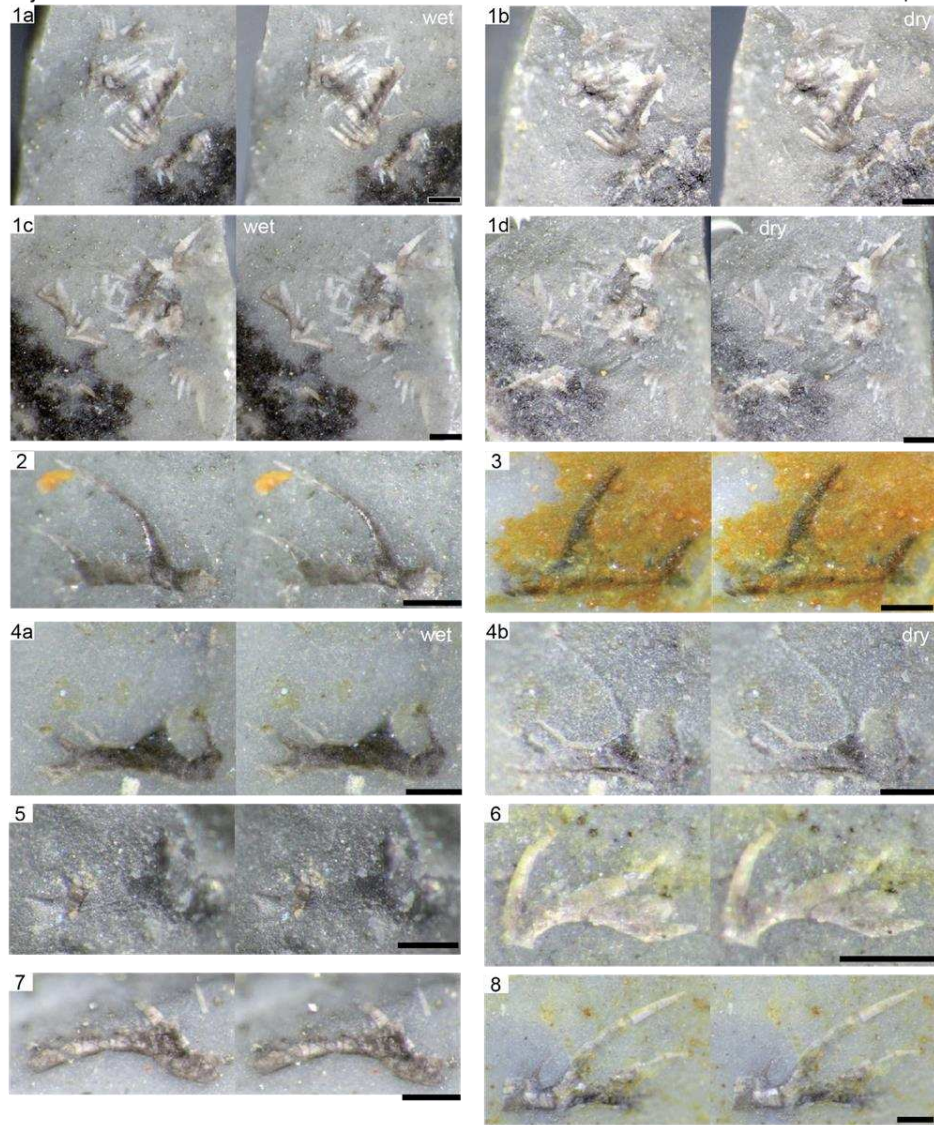
Scale bars : 200µm



1-2: *Ellisonia triassica* S3 element, 3: *Ellisonia triassica* S3 element (cf.), 4: *Ellisonia triassica* S4 element, 5: "*Neohindeodella*" sp. 6: *Chirodella breviramulis* P1 element, 7: *Ellisonia* cf. *triassica*. All figures are normally arranged pairs.

Figure S8
MjL-2 Bed 34

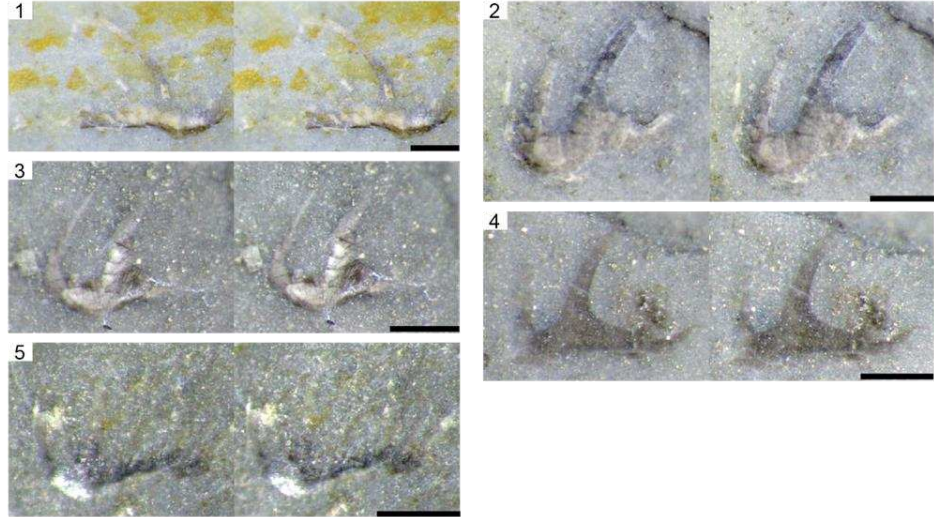
Scale bars : 200µm



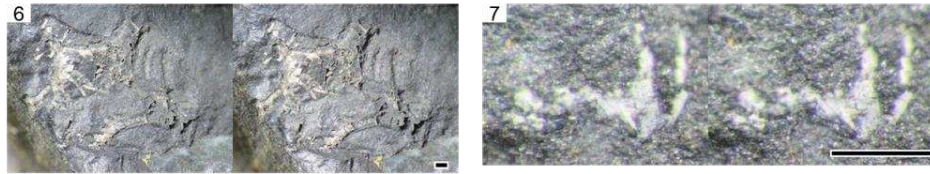
1: "*Neohindeodella*" triassica, 2: *Ellisonia triassica* S3/4 element, 3: *Ellisonia triassica* S3 element, 4: *Ellisonia triassica* S4 element, 5-8: "*Neohindeodella*" sp. . All figures are normally arranged pairs.

Figure S9

MjL-2 Bed 35



MjL-2 Bed 36



1-3: *Ellisonia triassica* S3 element, 4: *Ellisonia triassica* S4 element, 5: "*Neohindeodella*" *triassica*, 6: *Ellisonia triassica* S3 element(cf.), 7: "*Neohindeodella*" sp. . All figures are normally arranged pairs.

Figure S10

Scale bars : 200µm

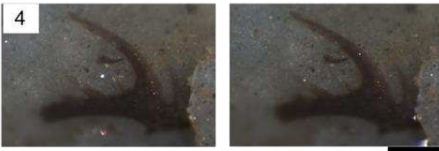
MjL-3 Bed 9



MjL-3 Bed 11



MjL-3 Bed 20

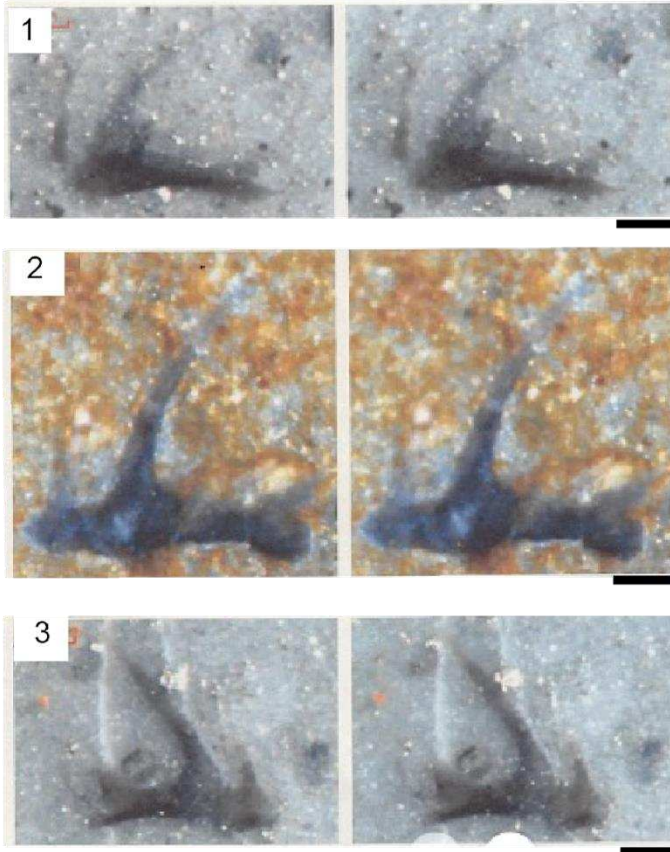


1: *Parachirognathus* aff. *ethingtoni* of Koike(1982), 2: *Ellisonia triassica*, 3: *Ellisonia triassica* S4 element, 4: *Ellisonia triassica* S3 element. All figures are normally arranged pairs.

Figure S11

MjL-5 Bed 2

Scale bars : 100µm



1-2. *Ellisonia triassica* S3/4 element

("*Neohideodella*" *raridenticulata*)

3. *Ellisonia triassica* S3/4 element

("*Neohindeodella*" *nevadensis*)

Figure S12

