

Supplementary material

Figs S1–S6

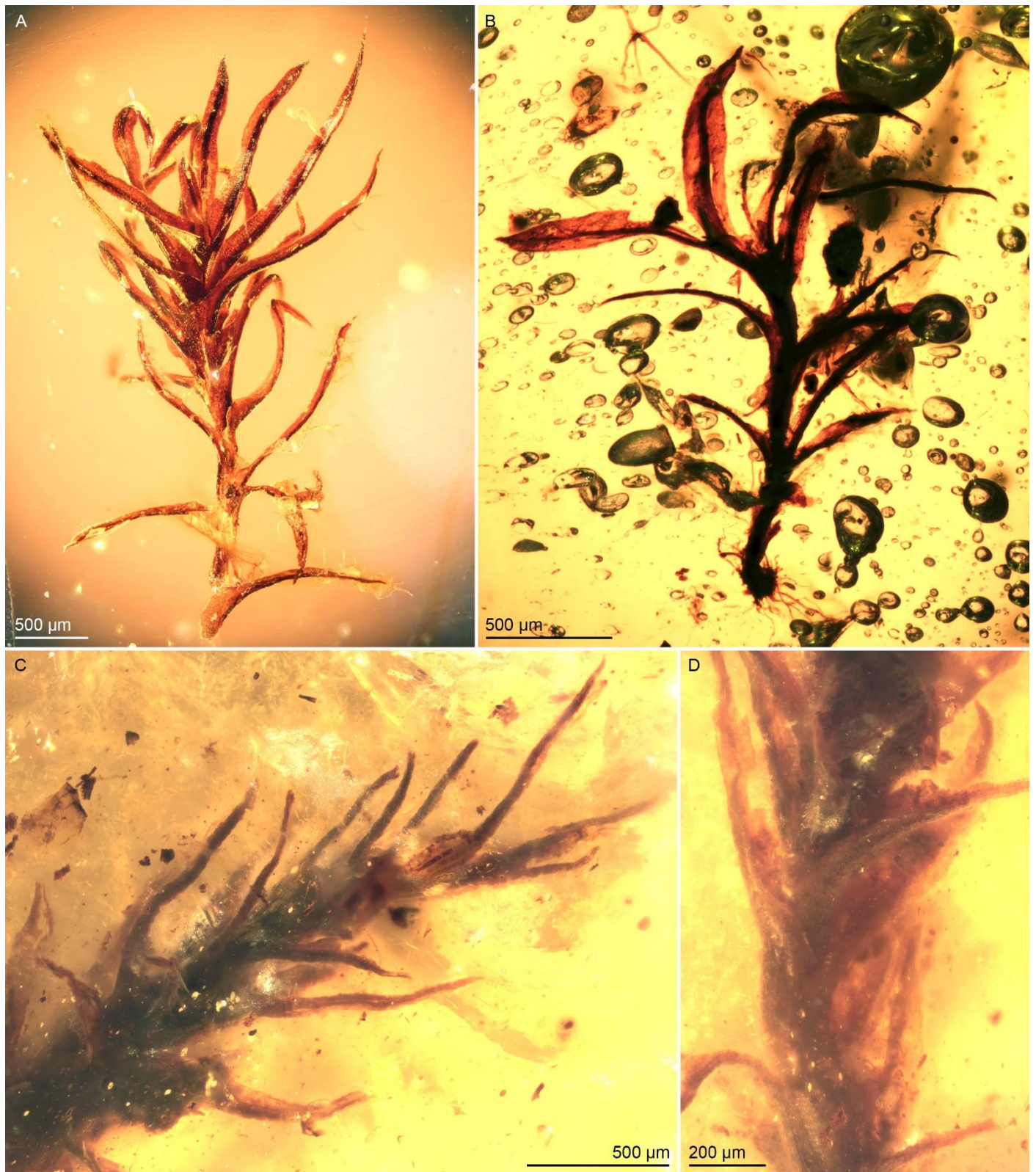


Figure S1: *Calymperites burmensis* Heinrichs et al. A. AMNH Bu ASJH-2, holotype; overview of gametophyte fragment (published in Heinrichs et al. 2014). B. Müller BuB4398; overview of gametophyte fragment. C, D. Müller BuB4339. C. Overview of gametophyte fragment. D. Detail.

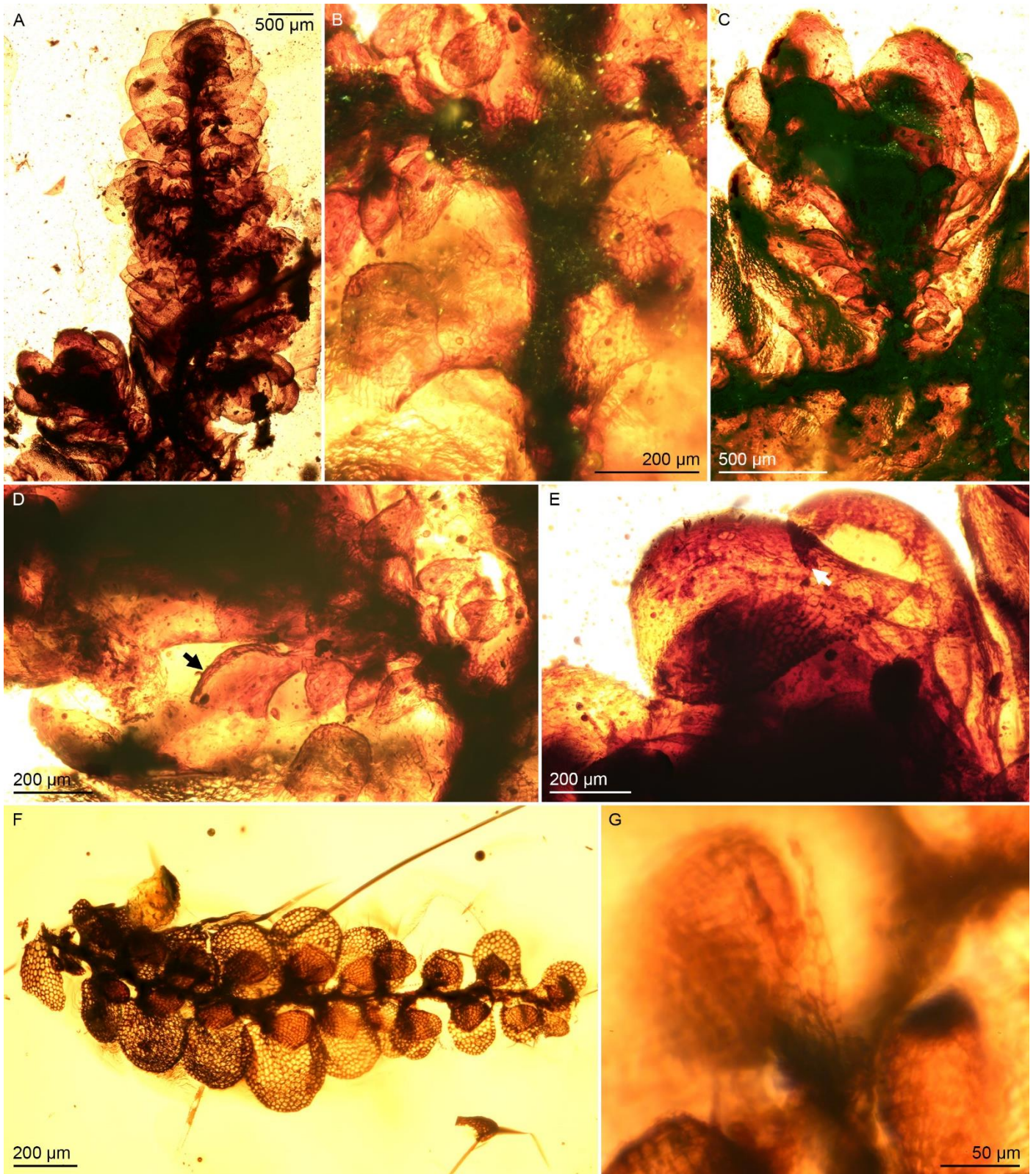


Figure S2: *Frullania baerlocheri* Heinrichs et al. and *Frullania cretacea* Hentschel et al. A–E. *Frullania baerlocheri*, GZG.BST.22039 (Müller BuB4220). A. Gametophyte, ventral. B. Detail of main shoot with lobules, underleaves, and base of gynoecial branch. C. Gynoecium, ventral. D. Detail of gynoecial branch and subinvolucral lateral leaf with explanate lobule (indicated by black arrow). E. Bracts, ventral (acute lobe apex indicated by white arrow). F, G. *Frullania cretacea*, Müller BuB4411. F. Gametophyte, ventral. G. Ciliate underleaf.

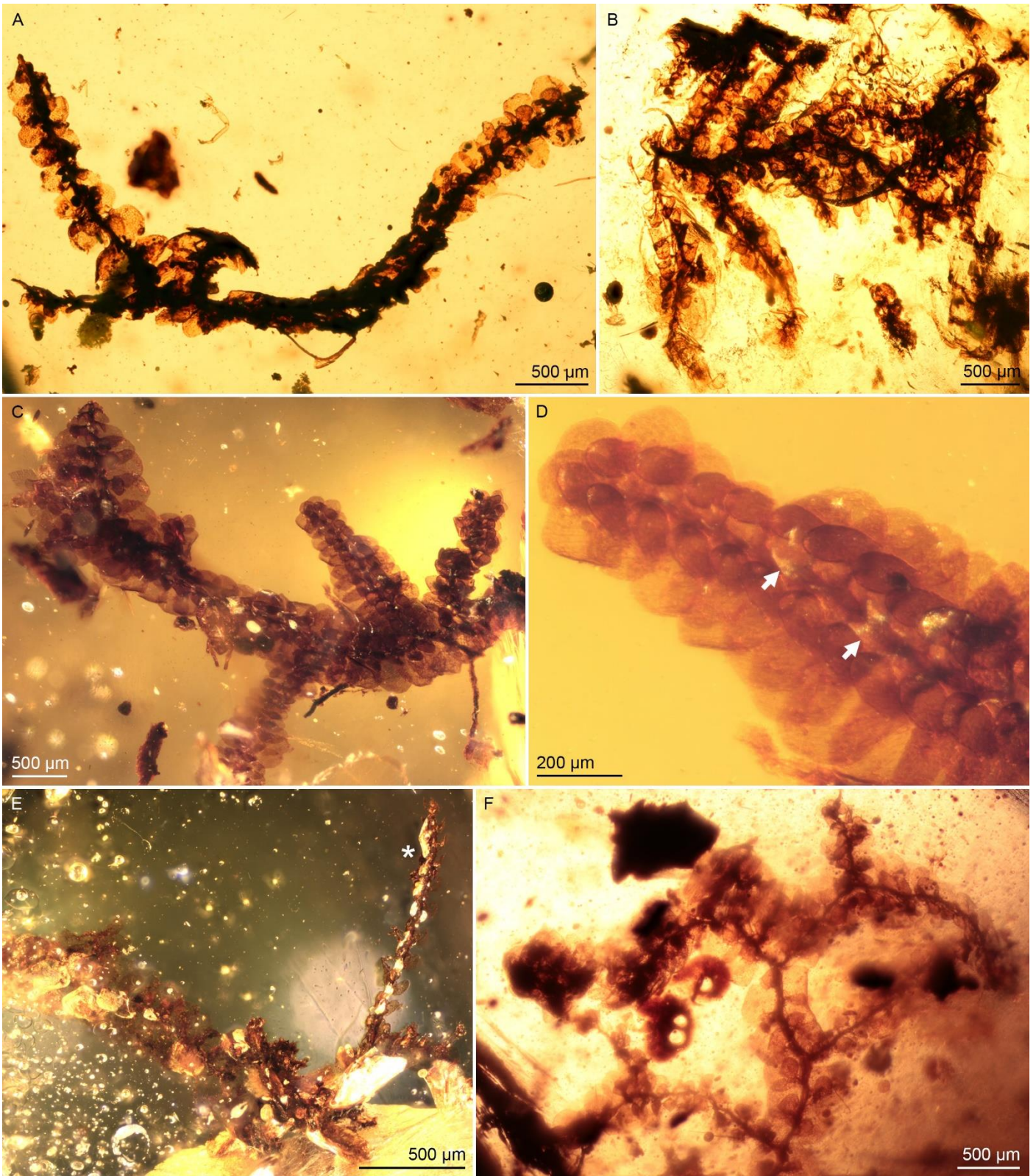


Figure S3: *Prototrullania cornigera* Heinrichs. A. Müller BuB3811; gametophyte, ventral. B. Müller BuB3812; gametophyte, ventral. C, D. Müller BuB4333. C. Gametophyte, ventral. D. Detail of branch, ventral (underleaves indicated by arrows). E. Müller BuB4334; gametophyte with flagelliform branch (indicated by asterisk), ventral. F. Müller BuB4335; gametophyte, ventral.

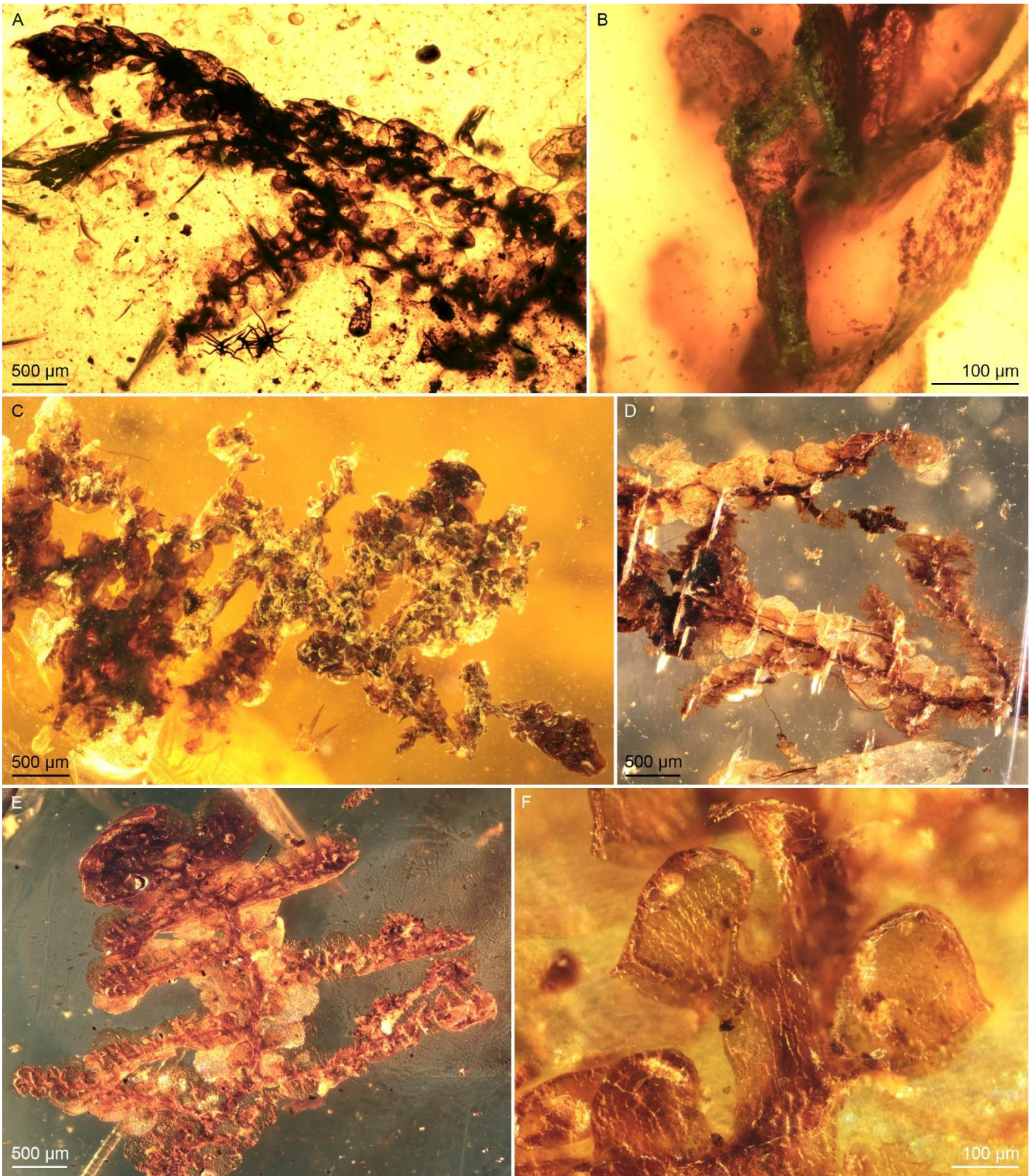


Figure S4: *Protofrullania cornigera* Heinrichs. A, B. Müller BuB4336. A. Gametophyte, ventral. B. Strap shaped underleaf on apex of main shoot, ventral. C. Müller BuB4337; gametophyte, ventral. D. Müller BuB4338; gametophyte, ventral. E, F. Müller BuB4394. E. Gametophyte, ventral. F. Ovate underleaves, ventral.

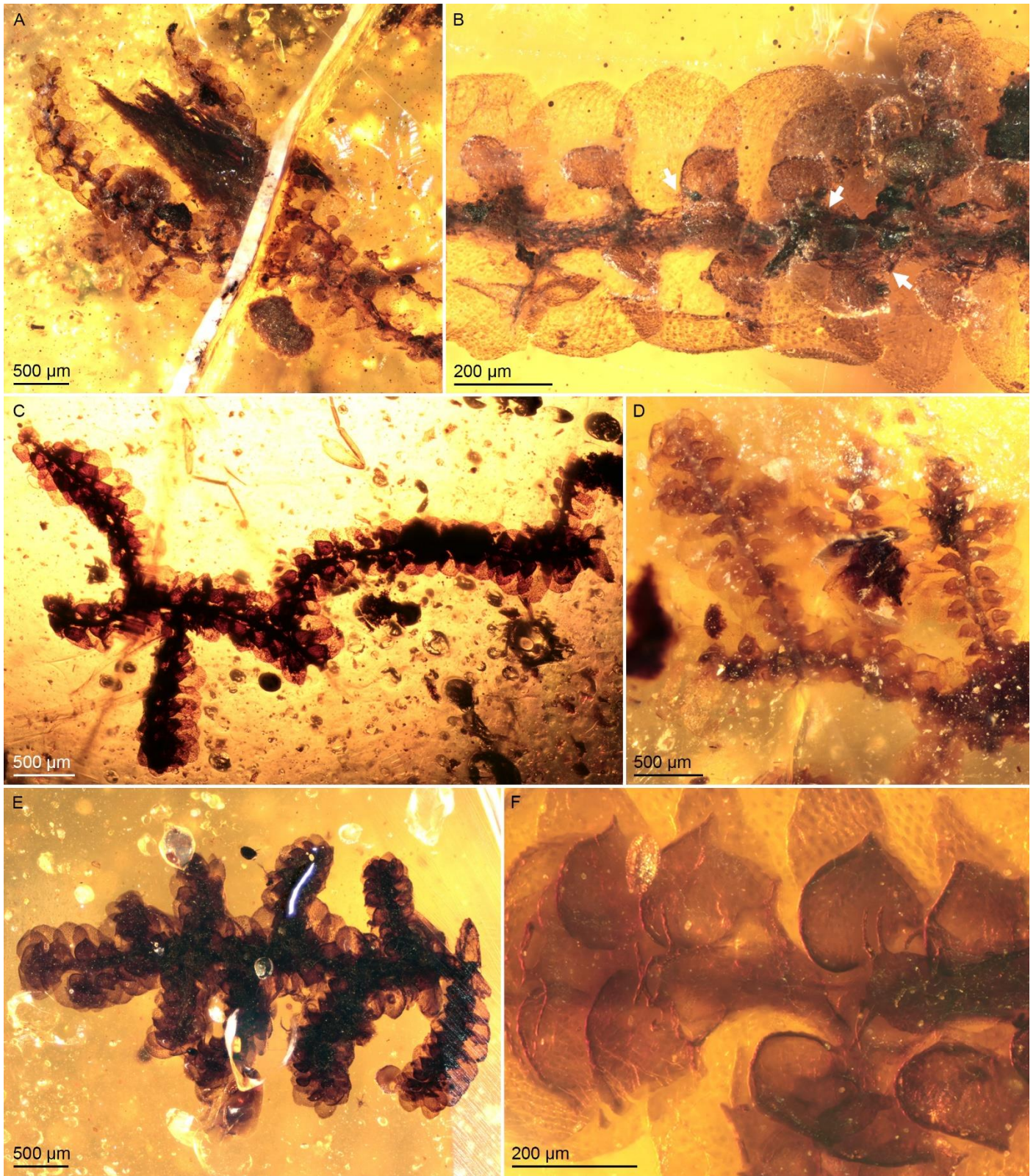


Figure S5: *Prototrullania cornigera* Heinrichs. A, B. Müller BuB4408a. A. Large gametophyte fragment, ventral. B. Detail, ventral (underleaves indicated by arrows). C. Müller BuB4408b; small gametophyte fragment, ventral. D. Müller BuB4409; gametophyte, ventral. E, F. Müller BuB4413. E. Gametophyte, ventral. F. Shoot apex with underleaves, ventral.

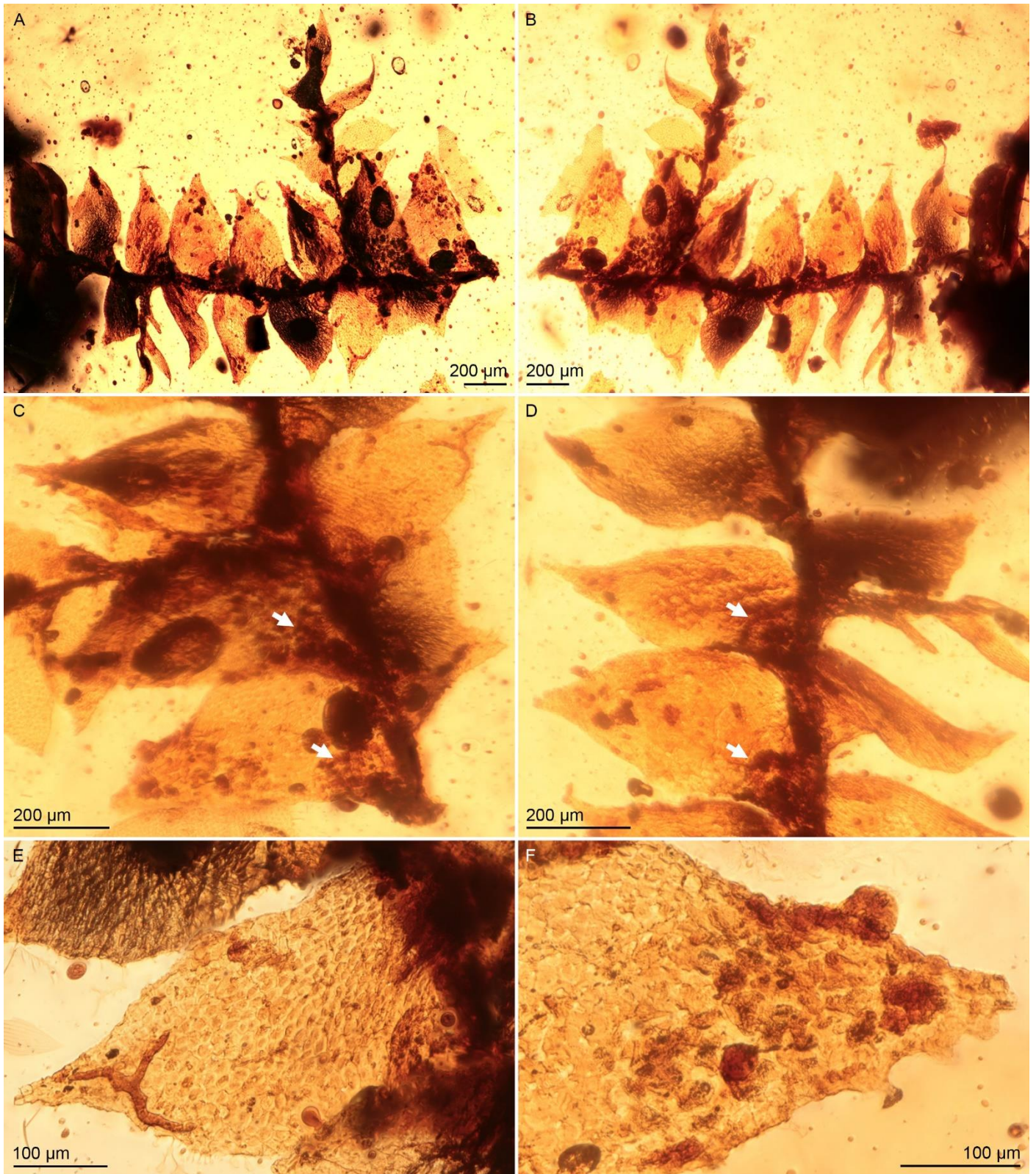


Figure S6: *Radula* sp., GZG.BST.22043 (Müller BuB4420). A. Gametophyte, dorsal. B. Gametophyte, ventral. C. Leaves on lower part of shoot and base of *Radula*-type branch, ventral (lobules indicated by white arrows). D. Obliquely patent leaves on upper part of shoot, ventral (lobules indicated by white arrows). E. Acuminate lobe, dorsal. F. Lobe apex with marginal gemmae, dorsal.