Supplementary Material

Conodonts from the top of San Juan Formation at Don Braulio Creek

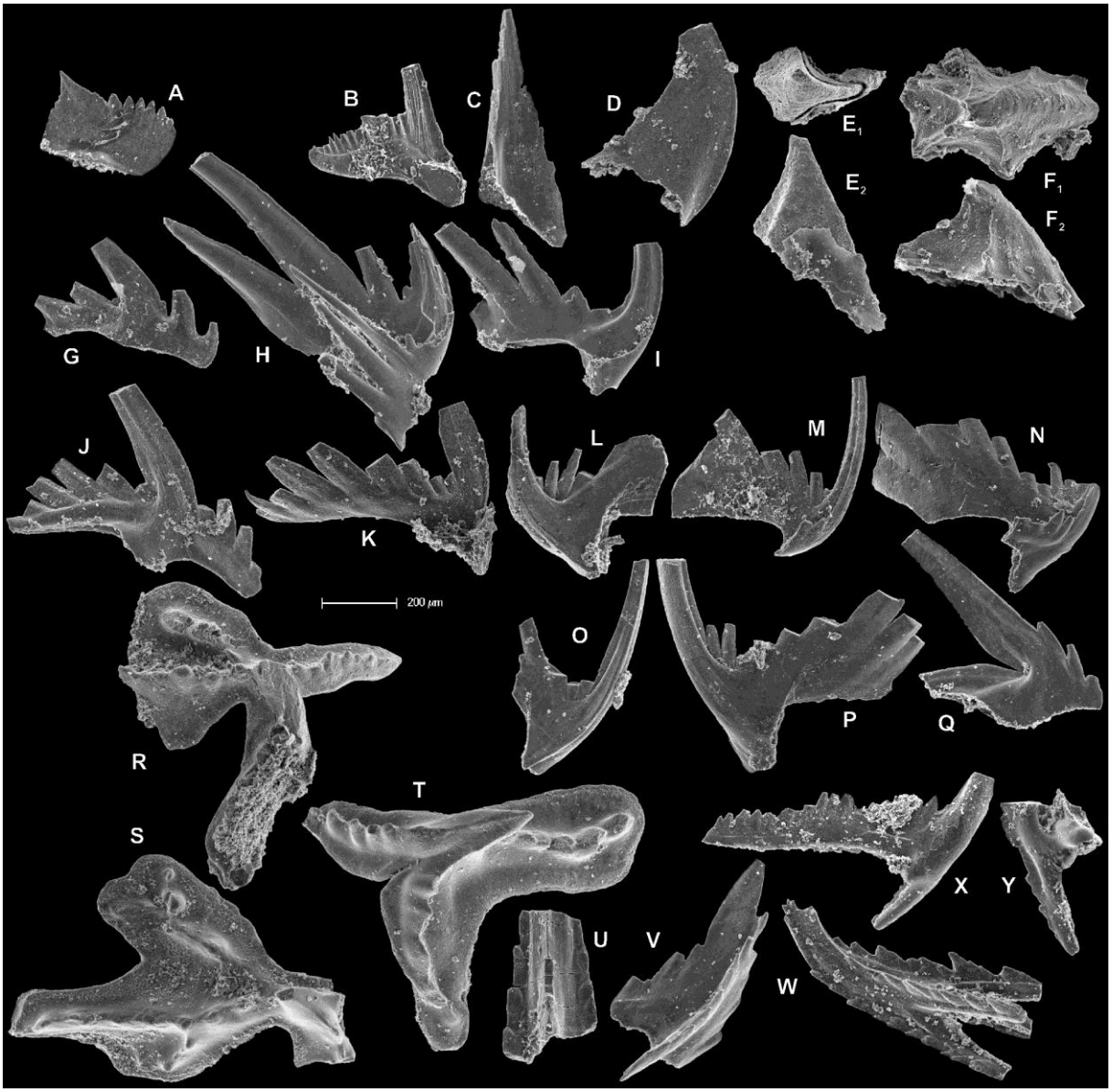
The sample with phosphatised and silicified molluscan larvae yielded 906 conodont elements. Taxonomic structure of the assemblage is similar to that from coeval strata in Newfoundland, except for the balognathid *Eoplacognathus*, indicating some Baltic influences. Contribution of particular species is as follows:

Scolopodus sp. − 26 specimens;
Parapaltodus simplicissimus Stouge, 1984 − 37 specimens;
Protopanderodus gradatus Serpagli, 1974 − 90 specimens;
Protopanderodus calceatus Bagnoli & Stouge, 1996 − 87 specimens;
'*Scandodus' robustus* Serpagli, 1974 − 1 specimen;
Drepanoistodus bellburnensis Stouge, 1984 − 58 specimens;
Drepanoistodus basiovalis (Sergeeva, 1963) − 71 specimens;
Paroistodus horridus (Barnes & Poplawski, 1973) − 178 specimens;
Drepanoistodus sp. − 27 specimens;
Eoneoprioniodus sp. 26 specimens;
Scalpellodus? sp. or *Ansella jemtlandica* (Löfgren, 1978) − 1 specimen;
Histiodella holodentata Ethington & Clark, 1981 − 5 specimens;
Fahraeusodus sp. or *Histiodella holodentata* − 1 specimen;
Eoplacognathus zgierzensis Dzik, 1976 − 81 specimens;
Dzikodus galerus (Albanesi, 1998)? − 2 specimens;
Periodon aculatus zgierzensis Dzik, 1976 − 211 specimens;
Erraticodon alternans (Hadding, 1913) − 5 specimens.

SMFig. 1. Coniform conodont elements from the top of San Juan Formation at Don Braulio Creek, Villicum Range, Argentina. A–D. *Scolopodus* sp., elements P, S_0, $S_{1–4}$, and M, specimens ZPAL SJ 64–67. E–H. *Protopanderodus calceatus* Bagnoli & Stouge, 1996, elements P, S_0, $S_{1–4}$, and M, specimens ZPAL DJ 68–71. I. '*Scandodus' robustus* Serpagli, 1974, specimen ZPAL DJ 93 (may belong to the *Parapaltodus* apparatus). J–N. *Parapaltodus simplicissimus* Stouge, 1984, specimens ZPAL DJ 89, 88, 90, and 91, respectively. O–U. *Protopanderodus gradatus* Serpagli, 1974, elements P, S_0 (O, S), $S_{1–4}$ (Q, R), and M (T, U), specimens ZPAL DJ 77–83.

SMFig. 2. Distacodontid conodont elements from the top of San Juan Formation at Don Braulio Creek, Villicum Range, Argentina. A–E. *Drepanoistodus bellburnensis* Stouge, 1984, elements P (homeomorph o M element of *Drepanodus*), S_0, S_1, $S_{3–4}$, and M, specimens ZPAL SJ 87, 85, 92, 84 and 86, respectively. F-J. *Drepanoistodus basiovalis* (Sergeeva, 1963, elements P, S_0, S_1, $S_{2–4}$, and M; specimens ZPAL DJ 87, 85, 92, 84, and 86. K–O. *Paroistodus horridus* (Barnes & Poplawski, 1973), elements P, S (L, M, and O), and M,

specimens ZPAL DJ 73–76, and 72. P–R. *Drepanoistodus* sp., elements P, S_0, and M; specimens ZPAL DJ 52–54; S–AA. *Eoneoprioniodus* sp., elements P_2? (S, T), P_1? (U, V), S_0, S_1, S_2?, $S_{3–4}$, and M; specimens ZPAL DJ 56, 55, 57, 62, 58, 59, 61, 60, and 63, respectively (element V may belong to the apparatus of *Oistodus*).



SMFig. 3. Ramiform conodont elements from the top of San Juan Formation at Don Braulio Creek, Villicum Range, Argentina. A. *Histiodella holodentata* Ethington & Clark, 1981, element P, specimen ZPAL SJ 30. B. *Fahraeusodus* or *Histiodella*, undetermined element, specimen ZPAL SJ 33. C. Possibly S_1 element of *Histiodella*, specimen ZPAL SJ 32. D. *Scalpellodus*? sp. element M, specimen ZPAL SJ 27. E, F. Juvenile *Dzikodus galerus* (Albanesi, 1998)?, specimens 43, and 42. G–I. *Erraticodon alternans* (Hadding, 1913), elements P and $S_{1–4}$, specimens ZPAL DJ 28, 30, 29. J–Q. *Periodon aculatus zgierzensis* Dzik, 1976, elements P_1, P_2, S_0 (L, M), S_1, S_2, $S_{3–4}$, and M; specimens ZPAL DJ 34, 35, 38, 36, 37, and 39–41, respectively. R–Y. *Eoplacognathus zgierzensis* Dzik, 1976, elements P_1 (R, S), P_2, S_0, S_1, S_2, $S_{3–4}$, and M; specimens ZPAL DJ 44–51.