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Résumés - Abstracts

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A NEW VERTEBRATE ASSEMBLAGE FROM LATEST PLEISTOCENE MARINE SEDIMENTS NEAR ST-NICOLAS, QUÉBEC

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Approximately fifty vertebrate specimens have been recovered from Champlain Sea sediments exposed in sand and gravel pits in the vicinity of St-Nicolas, Québec. The fossils belong to at least six taxa, including two species of fishes (Atlantic Wrymouth, *Cryptacanthodes maculatus*, and Eelpout, *Lycodes sp.*), two species of aquatic birds (Thick-billed Murre, *Uria lomvia*, and Oldsquaw duck, *Clangula hyemalis*), and two species of marine mammals (seal, *Phoca sp.*, and White whale, *Delphinapterus leucas*). The fish and bird records are new for Champlain Sea deposits. The material consists of well preserved but disarticulated and isolated (mostly postcranial) elements, indicating transport and/or redeposition. Parts of the pits have been exposed for a long time and are well known Champlain Sea fossil localities, first studied by J.W. Dawson in the late 19th century. The newly reported vertebrate remains are from fresh exposures where a continuous regressive Champlain Sea sequence is observed. The regressive sediment sequence starts, at the base, with Unit 1, composed of clays, ranging from massive to diamictic, whose calcareous microfauna represents a deep, open marine phase of the Champlain Sea. Unit 1 is overlain by a 5m thick sequence of massive to cross-bedded sands, the upper 2.6m of which are exposed. Unit 2 probably represents a subaqueous delta-fan formation with shifting distributaries and abundant supply of sand and fossil debris from shore and nearshore connecting environments. The bones, together with a rich invertebrate macrofauna and occasional wood fragments, are found in the upper part of this delta-fan unit where they have been transported as part of the bed load; microfossils from various depths from the upper part of Unit 2 are consistent with *post-mortem* transport. Overlying abruptly Unit 2 is a thick (2m) sequence of rhythmic interstratification of fine sands and silty clays, composing Unit 3. Fragmented macrofossils are present at the base of Unit 3, whereas shallow, brackish marine microfossils are present throughout. Unit 4, the uppermost unit (thickness: 4m), starts with massive sand with pebbles, followed by rhythmites similar to those of Unit 3; it does not contain marine fossils. Units 3 and 4 were probably deposited in a gradually shallowing and freshening fluvial-estuarine setting.

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