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**Conodont Biostratigraphy and Facies Correlations in an Upper Triassic Island Arc,
Keku Strait, Southeast Alaska**

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Late Triassic rocks in the Keku Strait area of southeast Alaska record a variety of facies in an intra-arc setting. The Hyd Group consists of the Burnt Island Conglomerate, Keku sedimentary strata, Cornwallis Limestone, Hamilton Island Limestone, and the Hound Island Volcanics. The Burnt Island Conglomerate represents initial infill of the basin and underlies the Hamilton Island Limestone, which is coeval to the Cornwallis Limestone and Keku sedimentary strata. Volcanic and sedimentary rock of the Hound Island Volcanics overlie the entire area. An improved biostratigraphic framework indicates deposition from Early Carnian through Late Norian time. Conodonts originating in the Late Carnian include *Metapolygnathus polygnathiformis*, *Metapolygnathus carpathicus*, *Metapolygnathus nodosus*, *Metapolygnathus* sp. cf. *M. reversus*, *Metapolygnathus* sp. aff. *M. zoeae*, *Metapolygnathus* sp. aff. *M. nodosus*, and *Metapolygnathus primitius*. Early Norian conodonts include *Epigondolella quadrata*, *Epigondolella* sp. aff. *E. quadrata*, *Epigondolella triangularis*, and the longer-ranging *Neogondolella* sp. and *Misikella longidentata*. Middle Norian conodonts include *Epigondolella spiculata*, *Epigondolella* sp. aff. *E. spatulata*, *Epigondolella* sp. aff. *E. transitia*, *Epigondolella* sp. aff. *E. matthewi*, *Epigondolella postera*, and *Neogondolella steinbergensis*. Late Norian conodonts include *Epigondolella bidentata*, *Epigondolella englandi*, *Epigondolella* sp. aff. *E. mosheri*, and *Epigondolella tozeri*.

This study resulted in three major accomplishments. Reworked Paleozoic conodonts in Late Triassic rocks, combined with geologic evidence, suggest major pre-Late Triassic uplift due to compressional tectonics. Late Carnian and Early Norian ages supports the correlation between the Keku sedimentary strata, shallow marine limestone of the Cornwallis Limestone, and deeper water limestone of the Hamilton Island Limestone. Precise conodont biostratigraphy establishes the base of the Hound Island Volcanics as late Early Norian, within the *Epigondolella triangularis* Zone.