

SWC 11 at 7100 feet.

Zone: Lower *M. diversus*
 Age: Early Eocene
 C.R.: 2
 K.R.: 2-, slight to moderate alteration

The assemblage consists of rare, poorly preserved spore-pollen and an overwhelming dominance of a single, undescribed species of dinoflagellates, tentatively identified as *Deflandrea? sp.*

SWC 10 at 7225 feet and SWC 9 at 7288 feet.

Zone: Indeterminate, probably Lower *M. diversus*
 Age: Probably Early Eocene
 C.R.: 2
 K.R.: 2 to 2+, moderately altered

Rare, dark, poorly preserved spore-pollen are present in both samples and SWC 9 has a few specimens of *Epicephalopyxis indentata*. The samples are no older than Upper *L. balmei*, but because no forms indicative of the *L. balmei* zones were found, a Lower *M. diversus* zone assignment is favored.

SWC 8 to SWC 1 from 7362 to 8896 feet.

Zone: Indeterminate
 Age: Indeterminate
 C.R.: Not rateable
 K.R.: Not rateable (too little organic matter) Samples from this interval are barren.

COMMENTS

In general, the spore-pollen assemblages from Toolka-1 are less diverse in terms of species and less abundant in terms of the quantity of specimens than were obtained from the sidewall cores from other Bass Basin wells. This is probably due in part to the fact that all of the fossiliferous samples between 5263 and 7288 feet are from sandstones rather than finer grained clastics. The latter customarily yield more abundant and diverse and consequently more representative palynomorph assemblages than do sandstones and other coarser clastic sediments.

Because of the rather low spore-pollen diversity, particularly within the *M. diversus* zones, it was necessary to rely on the microplankton -perhaps disproportionately so- to subdivide the Toolka-1 section between approximately 6000 and 7100 feet. As a result, the relatively high confidence ratings (0 and 1) given to some of the assemblages from this interval reflect the reliability now placed on the dinoflagellates.