

Abstract:

Paleoecology and Oil Exploration<sup>1</sup>

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Oil exploration is benefiting from increased application of paleoecology, the study of relationships between ancient organisms and their environments. Information gained from detailed paleontologic and lithologic analyses leads geologists to a better understanding of depositional environments and is thereby of direct use in the search for stratigraphic traps, in the solution of complicated correlation problems, and in the unraveling of local and regional history. Interpretations of paleoenvironments are based upon a comparison of fossil fauna and flora with biota typifying present-day environments, or with similar fossil forms having a recognized environmental significance, and upon the nature and distribution of deposits and their characterizing textures and structures. Extensive investigations of facies laid down in modern environments have revealed biologic and sedimentologic data concerning lateral and vertical changes within sedimentary units which afford a means for better predicting trends, for interpreting stages in the filling of subsiding sedimentary basins, and for recognizing factors controlling oil accumulation.

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