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The Albo-Cenomanian in the Middle-East - New Element for Carbonate Platform Stratigraphy

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SUMMARY

In Middle-east, the albo-cenomanian comprises a prolific lithostratigraphic nomenclature. In-house studies on subsurface and outcrops sections lead Total biostratigraphers to use foraminifers charts for datings and paleoenvironments definition. Calibration on Ammonites zones is possible in the Late Albian-Early Cenomanian and Mid Cenomanian of Oman.

Further work of biostratigraphers could focus on a characterization of the "top Natih" or "top Mishrif" carbonate platform with foraminiferal assemblages located at formation top and a research of new sections at platform-basin transition.

This will help in the evaluation of the degree of truncation of the Mishrif/Natih formations below the turonian-coniacian unconformity.

In the Middle East, the Albian – Cenomanian comprises a prolific lithostratigraphic nomenclature. From Iraq to Oman, numerous formations were defined: Dokan, Mahilban, Maotsi, Fahad, Mishrif, Rumaila, Tuba, Dair, Mauddud, Natih and other formal or informal names for various lithologies of the carbonate platform during this period. In-house studies on subsurface (Iran, Iraq, Kuwait, Qatar, Oman) and outcrops sections (Oman, Iran) led Total biostratigraphers to use foraminifers charts for datings and paleoenvironments definition. Those charts were compared to published charts, based on western Tethys studies. Western Tethys charts do not include the endemic species of the Gulf, defined by Henson (1948), or figured here. We use species of the genus Charentia, Neoiragia, Orbitolina, Dictyoconus, Carinoconus, ?Lacazina, Cycledomia, Orbitolinella, Asterohedbergella, to construct a distribution chart. Calibration on ammonite zones is possible in the Late Albian – Early Cenomanian and Mid Cenomanian of Oman.

Further work of biostratigraphers could focus on a characterization of the “top Natih” or “top Mishrif” carbonate platform with foraminiferal assemblages located at formation top or below the first Hippuritids and a research of new sections at platform-basin transition, with planktonic foraminifera (Khatiyah or Zagros intra-shelf basins). This will help in the evaluation of the degree of truncation of the “Mishrif/Natih” formations below the Turonian – Coniacian unconformity.