



# Contribution to the revision of the geological map Aubagne-Marseille (Southeastern France) at the 1/50.000 scale, 3 rd edition: the Oligocene stratigraphical series of the Marseille-Aubagne basin

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**Contribution to the revision of the geological map Aubagne-Marseille (Southeastern France) at the 1/50.000 scale, 3<sup>rd</sup> edition: the Oligocene stratigraphical series of the Marseille-Aubagne basin**

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**Abstract**

The establishment of the 3rd edition of the geological map Aubagne-Marseille at 1/50.000 scale, gave us the opportunity to study and map the Oligocene continental series which constitutes the sedimentary filling of the Marseille-Aubagne basin and other smaller neighboring Oligocene basins.

Mapping was made at the 1/12.500 scale while detailed lithological sections were logged and sampled for biostratigraphical and sedimentological (microfacies) investigations.

A compilation of previous geological field-works and drillings carried out on the Marseille-Aubagne basin since the fundamental work of Depéret (1889) allowed us to provide complementary data on the Oligocene stratigraphy.

Our survey led us to establish a stratigraphical subdivision of the Oligocene series different from that proposed by Nury et al. in the 3rd edition of the map and notice Aubagne-Marseille (2018) and closer to the former stratigraphical scheme of Depéret (1889).

In particular, thanks to accurate correlations, we develop here the idea that there is only one stratigraphical series with lateral facies variations on the whole of a single Oligocene basin, contrary to the idea supported by Nury et al. of the existence of three stratigraphical series in three independent sub-basins.

In conclusion, we present the consequences that our results have on the geodynamical interpretation of the Oligocene basin Marseille-Aubagne.

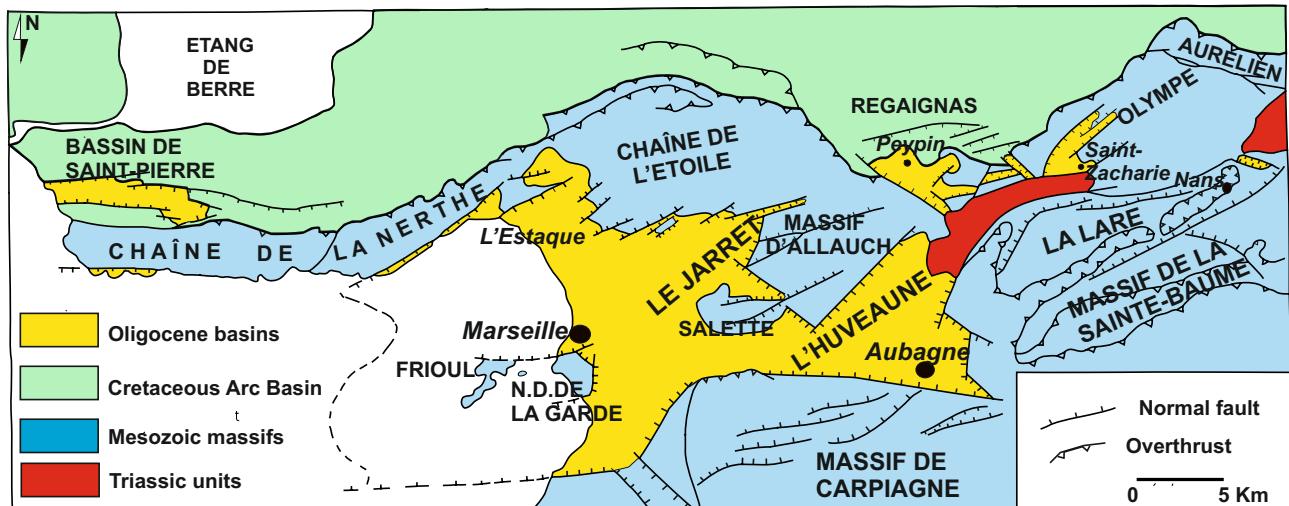


Fig. 1- Geological and structural framework of the Oligocene basin Marseille-Aubagne and other neighboring Oligocene basins.

Etages	Littoral de Marseille	Vallée du Jarret	Vallée de l'Huveaune	Peypin La Destrousse
Aquitanién	?	?	?	
Chattien 23,03Ma	Argiles jaunâtres et Poudingues de Marseille	Argiles jaunâtres et Poudingues de Marseille	Argiles et Poudingues de l'Huveaune	LACUNE
	SH-SA	Argiles rouges de la Bourdonnière	Argiles rouges de Saint-Jean de Garguier et de Saint Marcel	
Rupélien 28,1Ma	Calcaire de l'Estaque	Calcaires et brèches de l'Estaque	Calcaires et brèches des Maurins	Calcaires, argiles et Poudingues de la Destrousse
	Calcaire à striatelles	?	Calcaire de Donomagis	?
Priabonien 33,9Ma	Lacune	Argiles lignitifères de la Bourdonnière	Argiles lignitifères de Gémenos	Lacune

Table 1- Correlations between the Oligocene lithostratigraphical units of the Marseille-Aubagne basin. Horizontal bars indicate the position of the mammal biozones. SH-SA Saint-Henri Saint-André biozone (MP 26, Upper Chattian)- C.J. Cap-Janet biozone (MP 30, Uppermost Chattian).

## References

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The full text of the article (in French) is available on the web site of Géologie de la France at the following address:

<http://geolfrance.brgm.fr/troisieme-edition-carte-aubagne-marseille-au-150-000-publication-carte-dun-memoire-explicatif>