

Foramini Fera Biostratigraphy of the Gurpi Formation Southeast Jahrum

L. Fazli¹, J. Daneshian², Kh. Khosrow. Tehrani³ and D. Baghbani⁴

1. Department of Geology Science Faculty, Damavand Islamic Azad University.
fazli52@yahoo.com., Telephone : 0912-2892353, 021-22950908.
Address: floor 2 , no.15, 22Bahman Ave. Aghdasieh, Tehran, Iran.

2. Department of Geology Science Faculty Tarbiat Moalem University.

3. Department of Geology Science and Research Section, Islamic Azad University.

4. Surface Geology Office Exploration Section, National Iranian Oil Company.

Abstract

In order to biostratigraphic study of the Gurpi Formation, Kuh-e-Jahrum section located at southeast Jahrum, in Fars province have been selected. The Gurpi Formation in the Kuh-e-Jahrum composed of 335 meter limestone, Argillaceous limestone with interbedded cherty limestone and unconformity overlies the Ilam Formation and underlies the Tarbur Formation. The study of 195 sample from Kuh-e-Jahrum section, 12 genera and 29 species of planktonic foraminifera and 13 genera and 13 species of benthonic foraminifera were identified. On the basis of stratigraphic distribution of planktonic foraminifera is Campanian to Maastrichtian.

With respect to stratigraphic of planktonic foraminifera Formation, The section is comparable with Caron's biozonation and 6 biozones were identified. The biozones are as follow: 1-Globotruncanita elevata Interval Range zone., 2-Globotruncana ventricosa Interval Range zone., 3-Radotruncana calcarata Total Range Zone., 4-Globotruncanella havanensis Partial Range Zone., 5-Globotruncana aegyptiaca Interval Range Zone. Because of lacking the Gansserina gansseri and Abathomphalus mayaroensis in maastrichtian this study section cannot identified biozonation of Caron. Therefore two biozones Contusotruncana contusa and Muricohedbergella monmouthensis in maastrichtian Kuh-e-Jahrum section identified. Also Gurpi Formation in Kuh-e-Jahrum section comparable with biozones Globotruncanita elevata total range zone, and Globotruncanita stuarti- Pseudotextularia varians assemblage zone of Wynd.

Key word: Gurpi Formation, foraminifera, biostratigraphy, Jahrum, campanian, maastrichtian.

1. Introduction

In the summery Gurpi Formation developed in Fold Zagross in Provinces Khuzestan, Lorestan and Fars. Age sediment reported in restrict stage santonian to maastrichtian. It formation in named derived of Kuh-e-Gurpi in province Khuzestan, in local type section in north square oil Lali in north-east Masjed- Soleiman composed of 320 meter argillaceous limestone, shale Marl gray tend blue. Purpose of paper is study biostratigraphy Gurpi Formation in Kuh-e-Jahrum, on the basis planktonic foraminifera. Lithology Gurpi Formation in section Kuh-e-Jahrum is compose of limestone and argillaceous and cherty limestone. Section Kuh-e-Jahrum with coordinate 28° 21' 42" latitude north and 55° 40' 17" longitude east is in south east city Jahrum in province Fars.

The map shows position geography Kuh-e-Jahrum section

2. Biostratigraphy

Biostratigraphy section study carried out on the basis comparable with biozonation planktonic Foraminifera Caron, 1995. Biozones identified in section Kuh-e-Jahrum as follow: Globotruncanita elevata Interval Range Zone (Early Campanian).

Thickness biozone in Kuh-e-Jahrum section is 30 meter, and lower boundary biozone with first appearance *Globotruncanites elevata* of sample number RAP 243 and upper boundary biozone is determined with first appearance *Globotruncana ventricosa* to sample number RAP.253. Associated Foraminifera biozone as follows: *Heterohelix striata*, *Globotruncana bulloides*, *Marginotruncana paraventricosa*, *Macroglobigerinelloides bollii*, *Archaeoglobigerina blowi*, *Muricohedbergella holmdelensis*, *Heterohelix globolusa*, *Contusotruncana forficata*, *Cibicides montanus*, *Cibicides minimalis*.

Globotruncana ventricosa Interval Range Zone. (Middle Campanian)

Thickness biozone in Kuh-e-Jahrum section is 37 meter, and lower boundary biozone with first appearance *Globotruncana ventricosa* to sample number RAP.253. and upper boundary biozone is determined with first appearance *Radotruncana calcarata*

Associated Foraminifera biozone as follows: *Globotruncanites elevata*, *Spiroplecta* sp., *Globotruncana bulloides*, *Macroglobigerinelloides bollii*, *Macroglobigerinelloides ultramicrus*, *Marginotruncana paraventricosa*, *Archaeoglobigerina blowi*, *Muricohedbergella holmdelensis*, *Heterohelix globolusa*, *Contusotruncana forficata*, *Globotruncana linneiana*, *Macroglobigerinelloides prairiehillensis*, *Rugoglobigerina rugosa*, *Globotruncana lapparanti*, *Rotalia skourensis*, *Cibicides montanus*, *Cibicides minimalis*, *Quinqueloculina* sp., *Gavelinella* sp.

Radotruncana calcarata Total Range Zone (Late Campanian)

Thickness biozone in Kuh-e-Jahrum section is 14 meter, and lower boundary biozone with first appearance *Radotruncana calcarata* of sample number RAP. 265 and upper boundary biozone is determined with last appearance *Radotruncana calcarata* to sample number RAP.270. Associated Foraminifera biozone as follows: *Spiroplecta* sp., *Globotruncana bulloides*, *Macroglobigerinelloides bollii*, *Macroglobigerinelloides ultramicrus*, *Heterohelix globolusa*, *Globotruncana linneiana*, *Contusotruncana forficata*, *Rugoglobigerina rugosa*, *Globotruncana arca*, *Globotruncanites stuartiformis*, *Gavelinella* sp.

Globotruncanella havanensis Partial Range Zone. (Late Campanian)

Thickness biozone in Kuh-e-Jahrum section is 17 meter, lower boundary biozone with last appearance *Radotruncana calcarata* of sample number RAP. 270 and upper boundary biozone is determined with first appearance *Globotruncana aegyptiaca* to sample number RAP.274. Associated Foraminifera biozone as follows: *Spiroplecta* sp., *Globotruncana bulloides*, *Muricohedbergella holmdelensis*, *Heterohelix globolusa*, *Globotruncana linneiana*, *Macroglobigerinelloides prairiehillensis*, *Rugoglobigerina rugosa*. *Globotruncanites stuarti*, *Globotruncanites stuartiformis*, *Macroglobigerinelloides subcarinatus*, *Quinqueloculina* sp.

Globotruncana aegyptiaca Interval Range Zone. (Late late Campanian)

Thickness biozone in Kuh-e-Jahrum section is 30 meter, lower boundary biozone with first appearance *Globotruncana aegyptiaca* of sample number RAP. 274 and upper boundary biozone because of lacking *Gansserina gansseri*, is determined with first appearance *Contusotruncana contusa* to sample number RAP.284. Associated Foraminifera biozone as follows: *Spiroplecta* sp., *Heterohelix striata*, *Muricohedbergella holmdelensis*, *Rugoglobigerina rugosa*, *Globotruncanites stuarti*, *Globotruncana falsostuarti*, *Pseudotentularia elegans*, *Globorotalites subconicus*, *Muricohedbergella monmouthensis*, *Bolivinoidea darco*, *Bolivina primatumida*, *Marssonella* sp.

Also because of lacking index Foraminifera include *Gansserina gansseri* and *Abathomphalus mayaroensis*, two biozones local identified by writer as follows.

Contusotruncana contusa total range zone. (Maastrichtian)

Thickness biozone in Kuh-e-Jahrum section is 12 meter, lower boundary biozone with first appearance *Contusotruncana contusa* of sample number RAP. 284 and upper boundary biozone is determined with last appearance *Contusotruncana contusa* to sample number RAP.289.

Associated Foraminifera biozone as follow: Muricohedbergella holmdelensis, Globotruncanita conica Minouxia sp., Bolivinooides sp.

Muricohedbergella monmouthensis Partial Range Zone (masstrichtian)

Thickness biozone in Kuh-e-Jahrum section is 200 meter, lower boundary biozone with last appearance Contusotruncana contusa of sample number RAP. 289 and upper boundary biozone is determine with last appearance Muricohedbergella monmouthensis to sample number RAP.359. Associated Foraminifera biozone as follow: Muricohedbergella holmdelensis, Rugoglobigerina rugosa.

Biostratigraphic chart shows Gurpi formation in kuh-jahrum section.

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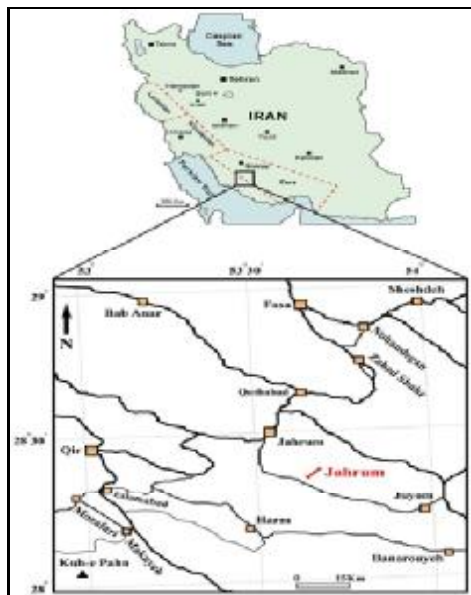


fig1: The map shows position geography Kuh-e-Jahrum section

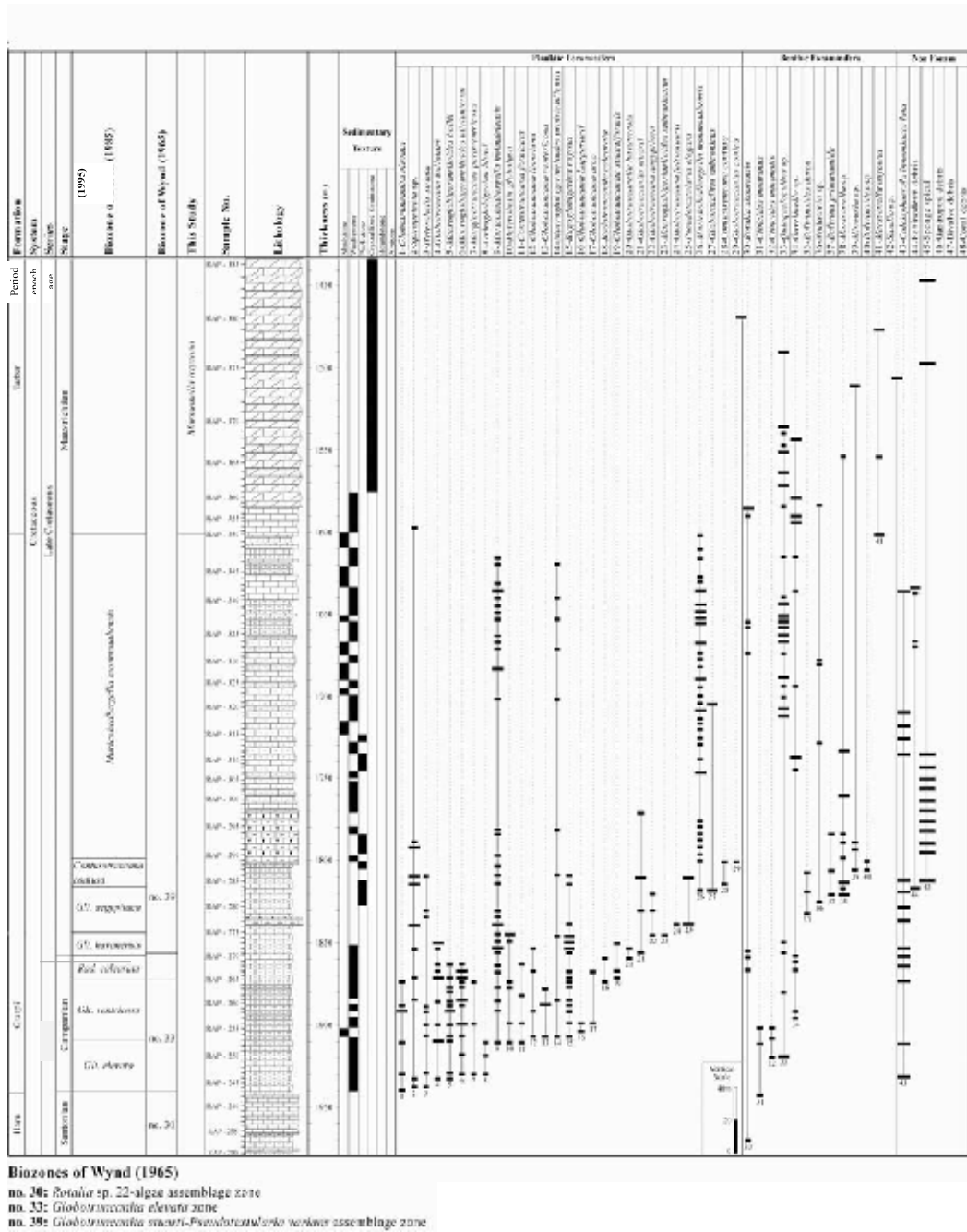
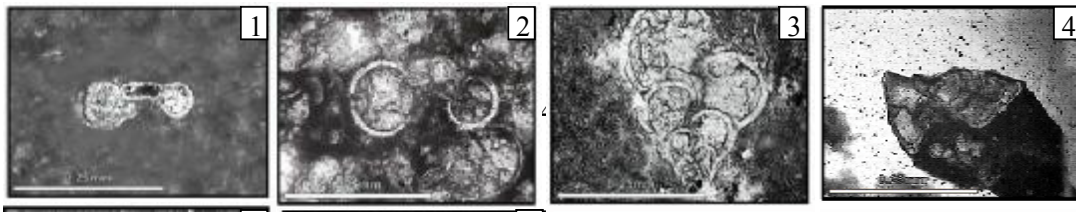


fig2: Biostratigraphic chart shows Gurpi formation in kuh-jahrum section.



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Fig 1. *Muricohedbergella holmdelensis*, No. RAP. 259.
Fig 2. *Muricohedbergella monmouthensis*, No. RAP. 330.
Fig 3. *Heterohelix globolusa*, No. RAP. 247.
Fig 4. *Globotruncanita elevata* No. RAP. 246.
Fig 5. *Contusotruncana fornicata* No. RAP. 263.
Fig 6. *Contusotruncana contusa* No. RAP. 290.
Fig 7. *Globotruncana linneiana* No. RAP. 258.
Fig 8. *Globotruncana bulloides* No. RAP. 264.
Fig 9. *Globotruncana aegyptiaca* No. RAP. 280.
Fig 10. *Archaeoglobigerina blowi* No. RAP. 246.

Fig 11. *Globotruncana ventricosa* No. RAP. 258.
Fig 12. *Globotruncanita conica* No. RAP. 294
Fig 13. *Globotruncanita stuarti* No. RAP. 277
Fig 14. *Globotruncanita stuartiformis* No. RAP. 265
Fig 15. *Radotruncana calcarata* No. RAP. 267
Fig 16. *Globotruncanella havanensis* No. RAP. 273
Fig 17. *Rugoglobigerina rugosa* No. RAP. 262.
Fig 18. *Macroglobigerinelloides bollii* No. RAP. 260
Fig 19. *Macroglobigerinelloides subcarinatus* No. RAP. 266.
Fig 20. *Rotalia skourensis* No. RAP. 351.