

## A note on the Ostracoda from the Eocene beds of Kutch, Gujarat

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### Abstract

Fifty-seven species of ostracodes are recorded from the Eocene beds of Kutch, Gujarat. Forty-six species have been assigned to the previously established species from the Indian subcontinent. Eleven species are left under open nomenclature and are possibly new.

### Introduction

The Eocene beds are extensively developed in the western part of Kutch mainland, Gujarat, in an arcuate belt extending from Lakhpat (23°50'N : 68°47'E) in the north-northwest to Goyela (23°26'40"N : 68°49'25"E) in the south-southeast. These beds overlie the denuded surfaces of either the Deccan trap or the Paleocene beds and are in turn overlain by Oligocene beds. The Eocene beds of Kutch are known as the Berwali Series and these are divisible (Biswas, 1971) into two stages: the lower-Kakdi Stage (Early Eocene, and the upper Babia Stage (Middle Eocene).

The Eocene beds are rich in microfauna comprising mainly of foraminifers and ostracodes. A survey of the literature reveals that although considerable work has been done on the foraminifers of these beds during the last 140 years, the ostracodes have not received much attention from micropaleontologists. The only works are those of Lyubimova *et al.* (1960), Tewari and Tandon (1960), Guha (1968, 1974), and Singh (1971). Guha (1974) who reviewed the ostracodes from the Tertiary beds of Kutch and Cambay, listed in all 35 species from the Eocene beds of Kutch. The actual number of species, however, is much larger (*infra cit.*) than what has been recorded by Guha. In recent years, considerable work has been done on the taxonomy of ostracodes from the Eocene beds of neighbouring areas of Kutch, viz. Pakistan by Siddiqui (1971), and Rajasthan by Singh and Misra (1968), and Khosla (1972). Many of the ostracode species recorded from Kutch are common to those described from Pakistan and Rajasthan and there are duplications of names for several species. This has necessitated the revision of ostracodes of the Eocene beds of Kutch. With this intention the authors collected bed-by-bed samples from three sections exposed at localities near Naredi (23°34'30"N : 68°39'E), Harudi (23°20'30"N : 68°41'10"E), and Lakhpat villages. The beds of Kakdi Stage occur at the first locality while the beds of Babia Stage occur at the other two localities. All the three sections yielded a rich and varied ostracode assemblage. It comprises, in all, 57 species. The object of the present note is to place on record this assemblage. The detailed biostratigraphy and systematics is on hand and will be published elsewhere.

### Ostracode fauna

A check list of the ostracodes recorded from the Kakdi and Babia Stages is given below. (The species which are being reported for the first time from Kutch are marked by asterisk and wherever taxonomy has been revised the original name is enclosed within brackets).

Eighteen species occur restricted in the Kakdi Stage. These are: \**Actinocythereis valdiyai* (Singh and Misra) (= *Cythereis spinellosa* var. *Valdiyai* Singh and Misra), *Aglaiocypris kutchensis* (Guha) (= *Bythocypris kutchensis* Guha), \**Alocopocythere abstracta* Siddiqui, \**Bairdoppilata* sp. possibly new species, \**Cytherella tawaica* Singh and Tewari, \**Cytherelloidea guhai* Khosla, *Cytheropteron rameshi* (Singh and Misra) (= *Cytheropteron kutchensis* var. *minuta* Guha), \**Gyrocythere parvicarinata* Siddiqui, *Hornibrookella avadheshi* (Singh and Misra) (= *Cythereis avadheshi* Singh and Misra), *Occultocythereis peristicta* Siddiqui (= *Occultocythereis khoslai* Guha), *Paijenborchella maredienseis* Guha, *Paijenborchellina indica* (Khosla) (= *Paijenborchellina kutchensis* Guha), *Paracytheridea eocenica* (Khosla) (= *Ortho-notacythere kutchensis* Guha), *Phalcoythere kakdiensis* (Guha) (= *Pterygocythereis kakdiensis* Guha), *Phlyctenophora jhingrani* (Singh and Tewari) (= *Paracypris jhingrani* Singh and Tewari), *Schizocythere bikanerensis* Singh and Misra (= *Schizocythere* cf. *S. levinsoni* of Guha, 1974), *Schizocythere spinosa* Guha, and *Semicytherura kutchensis* Guha.

Three species: *Dentokrithe indica* (Tewari and Tandon), *Schizocythere gujeratensis* Guha, and \**Xestolebris* sp. cf. *X. muelleriana* Linenklous, occur both in the Kakdi as well as the Babia Stage.

Thirty-six species are confined to the Babia Stage. These are: *Acanthocythereis bhujensis* (Tewari and Tandon), \**Acanthocythereis decoris* Siddiqui, \**Alocopocythere transcendens* Siddiqui, \**Anommatocythere* sp. cf. *A. confirmata* Siddiqui, "Archicythereis" *ventronodosa* (Sohn) (= *Exophthalmocythere?* *ventronodosa* Sohn), *Bairdoppilata kirtharensis* (Tewari and Tandon) (= *Bairdia?* *kirtharensis* Tewari and Tandon), *Bairdoppilata poddari* Lyubimova and Mohan, *Bairdoppilata sabdeltoidea koteswarensis* (Tewari and Tandon) (= *Bairdia subdeltoidea* var. *koteswarensis* Tewari and Tandon), (= *Bythocypris mianica* Tewari and Tandon), \**Cytherella* sp. A possibly new species, \**Cytherella* sp. B possibly new species, \**Cytherelloidea mitra* Sohn, \**Cytherelloidea* sp. A possibly new species, \**Cytherelloidea* sp. B possibly new species, \**Cytherelloidea* sp. C possibly new species, *Cytheropteron kutchensis* (Guha), *Cytheromorpha kirtharensis* Guha, *Echinocythereis (Scelidocythereis) sahnii* (Tewari and Tandon) (= *Hemicythere sahnii* Tewari and Tandon), *Gyrocythere indica* (Tewari and Tandon) (= *Hermanites indica* Tewari and Tandon), \**Hermanites palmatus* Siddiqui, \**Hermanites scopus* Siddiqui, *Hermanites* sp. possibly new species, *Hornibrookella arcana* (Lyubimova and Guha), \**Hornibrookella subquadra* Siddiqui, \**Hornibrookella* sp. possibly new species, *Kingmaina marhensis* (Tewari and Tandon) (= *Pterygocythereis marhensis* Tewari and Tandon), \**Neocyprideis bhupendri* (Singh and Misra), *Neonesidea indica* (Tewari and Tandon) (= *Bairdia indica* Tewari and Tandon), \**Occultocythereis indistincta* Siddiqui, *Paijenborchella trisulcata* Mandelstam, \**Paracytheridea* sp. possibly new species, *Phlyctenophora* sp. possibly new species, \**Stigmatocythere portentum* Siddiqui, \**Trachyleberis* sp. possibly new species, *Uroleberis kutchensis* Guha, and *Xestoleberis subglobosa* (Bosquet).

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