мурус). Среди артикулят имеется два уровня развития: аннелидный и высший артроподный у разных подтипов членистоногих, возникших независимо как параллельные ароморфозы, неоднократно появлявшиеся в типе кольчецов и выражавшиеся в появлении наружного хитинового скелета. Общие последствия от этого для всех подтипов членистоногих одинаковы и хорошо известны. Остановимся лишь на эмбриогенезах, обнаруживающих общие свойства и параллельно возникающих в разных подтипах. Их происхождение от спирального типа развития как в дроблении, так и первых пеллагических личинок ракообразных и хелицеровых несомненно. Личинки трахеат стоят особняком, ибо они возникли вторично, после выхода трахейнодышащих на сушу.

Разобранные нами вопросы говорят об ограниченных морфогенетических возможностях, в пределах которых и происходили изменения, давшие разные подтипы членистоногих, путем параллельных ароморфозов, указывающих на однообразие морфогенетических возможностей (реакций) у предковой группы — аннелид.

Это позволяет расширенно понимать «монофилию» как происхождение от группы, а не от отдельных видов родоначальников.

THE EVOLUTION OF *CICADOIDEA* (*HOMOPTERA*)

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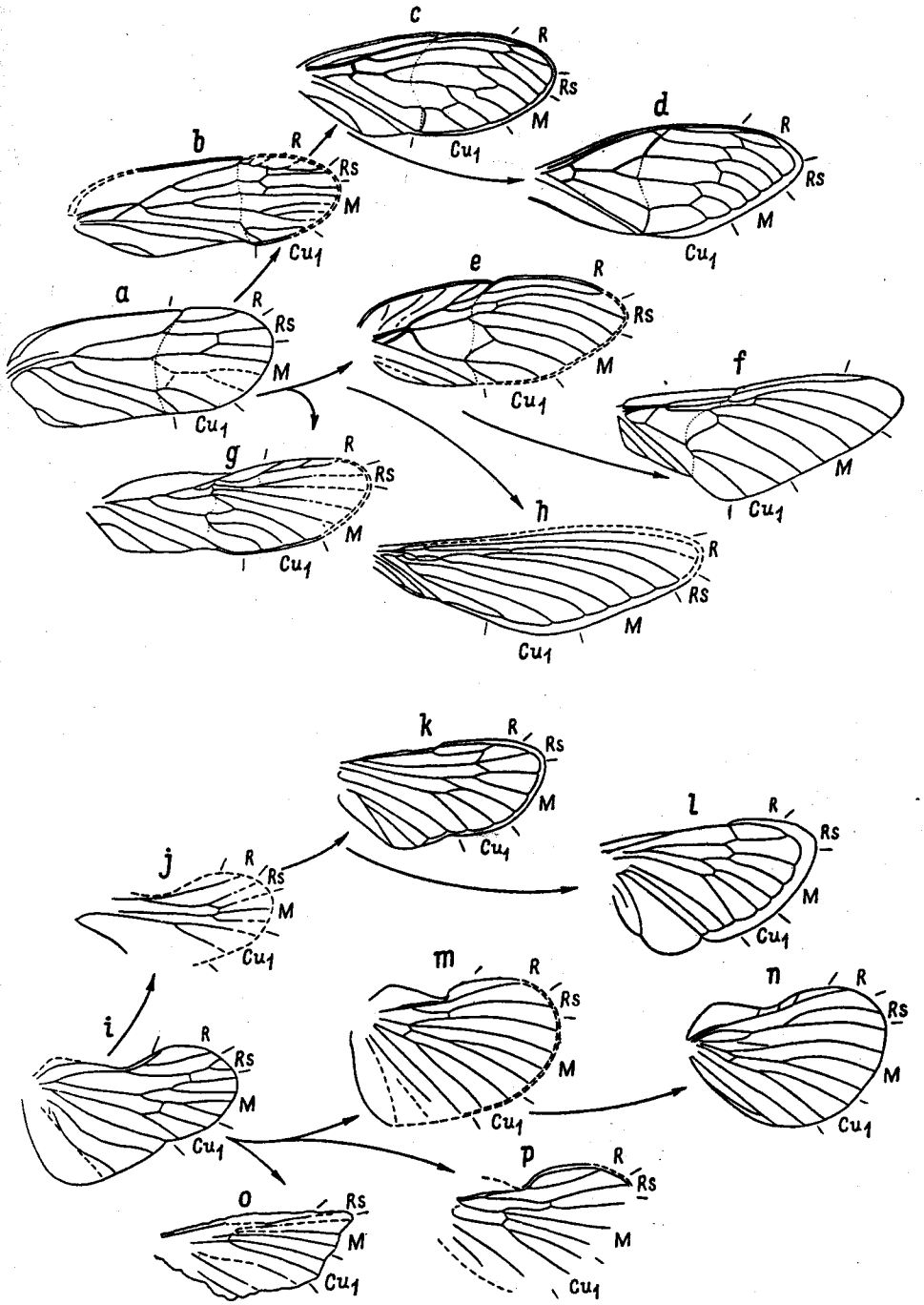
The initial radiation of the *Cicadoidea* occured in the late Carboniferous and early Permian, resulting in the *Prosbolidae* (figs. *a*, *i*), a varied family containing forms with and without a nodal line in fore-wing. All other cicadoid families arose from prosbolid types with a pronounced nodal line.

By the Mid. Trias, two evolutionary lines were distinct. One represented there by the *Cicadoprosbolidae* and leading to the *Tettigarctidae* and *Cicadidae* is characterised in the fore-wing by M forking initially well before the nodal line, the branches then forking again relatively distally, so that M_{1+2} and M_{3+4} are long; and by the usual presence of im. In the hindwing R and Rs separate before the mid-point of the wing but M and Cu fork at or beyond it. The second line comprises the *Dunstaniidae*, *Mesogereonidae* and *Palaeontinidae*. In the fore-wing M always forks initially at the nodal line and again relatively soon, so that the distal branches are long, im is absent. In the hind-wing R and Rs separate and M and Cu both fork well proximally to the mid-point of the wing.

The family *Cicadoprosbolidae* Becker-Migdisova 1947 (Mid. Trias—Low Cret., figs. *b*, *j*) which has usually been submerged on the *Tettigarctidae*, is best considered indepedently from *Tettigarcta* and its close relatives; and distinguished from the *Tettigarctidae* (Upp. Jur.—Recent, figs. *c*, *k*) by the elliptical form of the fore-wing, with broad costal area and clavus; by R being multibranched; by the basal coalescence of M and Cu; and by Cu_{1b} not following the nodal line to the wing margin. The families overlapped in time. *Hylaeoneura lignei* (Low Cret.) being a typical Cicadoprosbolid, and postdating a *Tettigarcta*-like form in the Purbeck. *Cicadoprosbolidae* and *Tettigarctydae* share the early separation of R and Rs in the fore-wing, well proximally to the nodal line. In *Cicadidae* (figs. *d*, *l*) R and Rs separate at the nodal line. The character is secondary, as *Cicadidae* share with *Tettigarctidae* a 2-branched R; a basal arculus; Cu_{1b} following the nodal line; and many hind-wing characters, They appear to have arisen from Tettigarctid-like forms. *Liassocicada* Bode (Upp. Lias.) which had R 2-branched, and R and Rs apparently separating at the nodal line, but Cu_{1b} distinct from the latter, may have been close to true *Cicadidae*. The line as a whole shows a progressive tendency to concentrate C, Sc, R and Rs at the anterior wing margin.

A similar trend occurs in the other Cicadoid line. *Dunstaniidae* (Low. and Mid. Trias., figs. *g*, *o*) and early *Palaeontinidae* (figs. *e*, *m*) have many prosbolid-like characteristics but show R and Rs separating clearly before the nodal line, and great elongation of the distal branches of the main veins. Early *Palaeontinidae*, at least, retained an underfolding neala. *Palaeontinidae* (Low Trias—Upp. Jur.) underwent considerable radiation in the Trias and Jurassic producing broad-winged and narrow-winged forms independently several times. Late species (fig. *f*) often had triangular fore-wings, with R, Rs and M separating at a single point, and forming with C and Sc a strong anterior border to the wing. In the hind wing R and Rs separated progressively earlier and Rs and M showed coalescence (fig. *n*). *Mesogereonidae* are close to *Palaeontinidae*, and were as early offshoot specialised towards fore-wing elongation. An upper Permian species is known.



Figs. *a*—*p*.

a — ***Prosbole incerta*** Martynov; *b*, *j* — ***Mesodipthera prosboloides*** Tillyard; *c*, *k* — ***Tettigarcta crinita*** Distant; *d*, *l* — ***Chonosia crassipennis*** Walker; *e*, *m* — ***Fletcheriana triassica*** Evans; *f* — Undescribed species; *g*, *o* — ***Dunstaniodes elongatus*** Becker-Migdisova et Wootton; *h* — ***Mesogereon superbum*** Tillyard; *i* — «Prosbole sp. 2», reconstructed after Martynov, 1935; *n* — ***Shurabocossus gigas*** Becker-Migdisova, redrawn after Becker-Migdisova, 1949; *p* — Undescribed species.