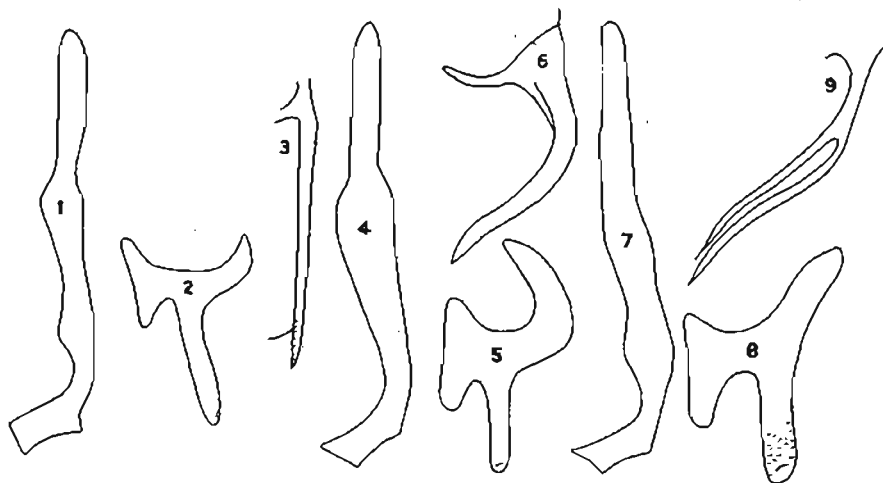


SOME NEW TEXAN ERYTHRONEURA (ERATONEURA) OF  
THE DIRA GROUP (HOMPOTERA: CICADELLIDAE)

DOROTHY J. KNULL

*Department of Zoology and Entomology, The Ohio State University, Columbus 10*

*Erythroneura* of many species were swarming on new elm leaves in Huntsville State Park, Walker Co., Texas, April 2, 1954, where they were collected by D. J. and J. N. Knull. Among them were three new species of the Dira Group.



EXPLANATION OF FIGURES

In the three numbers given for each species, first applies to style, second to lateral view of aedeagus, and third to pygofer hook.

*Erythroneura (Eratoneura) longa* n. sp. 1, 2, 3.

*Erythroneura (Eratoneura) robusta* n. sp. 4, 5, 6.

*Erythroneura (Eratoneura) schista* n. sp. 7, 8, 9.

The color markings in all three are orange and lightly joined, and of the usual pattern of this subgenus. Figures of the inner ♂ genitalia portray the distinguishing features of these new species. All type material is deposited in the collection of the author.

*Erythroneura (Eratoneura) longa* n. sp.

Figures 1, 2, and 3.

Near *E. patris* Ross and DeLong (1953) but with straight pygofer hook and broader toe on foot of style. Black dots on elytra small and round. Length 2.6 mm.

Holotype ♂ and two paratypes.

*Erythroneura (Eratoneura) robusta* n. sp.

Figures 4, 5, and 6.

Near *E. immota* Beamer (1932) but with short, thick, incurved pygofer hook, not swollen on outer two thirds, but almost parallel-sided to sharp tip. Length: 2.6 mm.

Holotype ♂ and sixteen paratypes.

*Erythroneura (Eratoneura) schista* n. sp.

Figures 7, 8, and 9.

Near *E. millsii* Ross and DeLong (1950) but with outer prong of pygofer hook a little longer than inner, and with more robust foot of style. Length: 2.8 mm.

Holotype ♂, allotype and six ♂ paratypes.

## REFERENCES

- Beamer, R. H. 1932. *Erythroneura* of the Maculata Group. *Can. Ent.* 64: 16-17.  
 Ross, H. H., and DeLong, D. M. 1950. New Species of *Erythroneura* of the Maculata Group. *Ohio Journ. Sci.* 50: 291.  
 ———, and ———. 1953. Biological and Taxonomic Notes on *Erythroneura*. *Ohio Jour. Sci.* 53: 77-90.

**Evolution of the Vertebrates.** *Edwin H. Colbert.* John Wiley & Sons, Inc., New York. 1955. xiii+479 pp. \$8.95.

The author states in his preface that "this is primarily a survey of the fossil record of back-boned animals" . . . and "is intended to be a general textbook on vertebrate paleontology for the general student rather than for the specialist." By "general student" he apparently means either one who is interested in all aspects of vertebrate Zoology, or one who is particularly concerned with the evidences of organic evolution. For either type of student, the book is a valuable and readily usable contribution in its broad treatment of the main lines of vertebrate phylogeny.

After a rather sketchy introduction to primitive living chordates and to the earliest known fossil forms as possible ancestral types, the text gets on firmer ground with the "Appearance of Placoderms." From here, the author is particularly adept in relating the past with the present; i.e., in describing fossil ancestral forms with direct reference to the histories and fates of their descendants still existing and extinct. Frequent comments on conditions of the environment, the size and habits of the animals, together with excellent and numerous illustrations combine to make the book stimulating and attractive.

W. JAMES LEACH

**Aspects of Deep Sea Biology.** *N. B. Marshall.* Philosophical Library, Inc., New York. 1954. 380 pp. \$10.00.

This beautifully illustrated and printed book serves as an introduction to the biology of the deep sea. Serious study of this part of the sea extends back only 81 years and there have been periods of inactivity since then, but in recent years there has been an upsurge of interest by biologists, other scientists, and the general public. *Aspects of Deep Sea Biology* will interest all people who wish to have a general education about the deeper regions of two-thirds of the earth's surface.

The chapter titles indicate the scope of subject matter and they are: The growth of deep sea biology, Means of exploring the ocean, The deep sea environment, Oceanic plants, Animal life in the deep sea, Deep sea food chains, Vertical patterns of mid-water life, counteracting gravity, The sense organs of deep sea fishes, Deep sea sound, Living light in the deep sea, Life histories, and Some aspects of marine biogeography.

These titles however do not indicate satisfactorily the historical approach the author has used and his emphasis on methods of exploring the depths and his leaving the reader not only with the current status of the subject but also with the realization that numerous problems remain to be solved. It is easy to agree with the author that, "The ocean is full of surprises, particularly for those who make up their minds too quickly".

Each chapter has a list of references. Five plates are colored, line drawings are numerous, and there is an index.

CARL VENARD

**Skyshooting.** *R. Newton Mayall and Margaret L. Mayall.* The Ronald Press Company, New York. 1949. xi + 174 pp. \$4.00.

"Skyshooting" is a hobby which blends two other hobbies: amateur photography and amateur astronomy. This book is thus directed to two wide but generally separate audiences. It exhorts, on the one hand, the camera fan to look skyward for new and exciting subjects for his insatiable camera, and on the other, the amateur astronomer, already familiar visually with sky objects, to capture these wonders with a camera.

The authors succeed in addressing both audiences. They give the practical know-how and explicit and understandable directions for photographing the wealth of stars and galaxies, the planets, sun and the moon, as well as flashing meteors and delicate aurorae. Expensive equipment is fine if you have it, but a simple "Brownie" will do. Knowledge of astronomy is not needed, but it helps.

The book can be recommended for the amateur astronomer and the amateur photographer alike.

J. A. HYNEK