

Using macrophotography, close-up photography and slow motion camera techniques, this program outlines the differences and similarities between the two members of the order Odonata, the dragonflies and damselflies. Discussed initially are the physiological similarities of these two insects, their food sources and the territoriality of the males. Male dragonflies fly to patrol their territory while damselfly males perch.

The video explores courtship and reproductive behaviors and explains how they are different. It also describes the egg-laying behavior of the different species of damselflies, including the unique behavior of the Emerald damselfly. Both adults of Emerald damselflies immerse themselves in water for up to 15 minutes (male still attached to the female) while the female lays her eggs in aquatic vegetation. In the spring, the eggs hatch into prolarvae which last for a few seconds before emerging as a nymph (naiad) which exists as a highly effective predator. Also indicated is the predatory effectiveness of the adults. The aquatic larvae live for one to three years in forms which are adapted to the environment. The film shows metamorphosis into adulthood, which occurs after the period as a naiad.

Offering an explanation of thermal regulation, in particular the increase in body temperature required to fly, the program discusses behavior necessary to decrease body temperature. The question of where adult dragonflies go at night is answered.

The complete life history of the order is illustrated in this program which can be adapted for use in most introductory biology courses as well as in zoology and entomology. It could be used in all grades from junior high through college.

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# Book Reviews

## CREATIONISM

### FALLACIES OF CREATIONISM

by Willard Young. 1985. Detselig Enterprises Limited (P.O. Box G399 Calgary, Alberta, Canada T3A 2G3). 302 p. \$19.50.

Willard Young does a fine job of exposing much of the nonsense that advocates of creationism are spreading across the continent. His main theme, which he develops very well, is that creationism is necessarily a religious product. He explains at considerable length why it is absurd to contemplate *scientific* creationism. At its base, "scientific" creationists have conducted no experiments, gathered no data, and have no real theoretical structure to present. At best, they carp about and criticize alleged shortcomings in evolutionary theory while producing nothing themselves. At worst, they retreat into Biblical references as their source for scientific knowledge! With creationists clamoring ever more loudly for "equal time" for scientific creationism, it is good to be reminded and convinced, if necessary, that there really is no such thing.

Young presents an excellent and timely analysis of the various creationist organizations and activities. His presentation about the tactics of these groups should be required reading for all biologists, especially for teachers of biology. There is a seductive pseudo-rationalism in some of the creationist's writing which along with their distortion of data, partial quotes and lifting things out of context makes for a heady brew for the unwary.

This book does a fine job of clearing up the brouhaha about the Second Law of Thermodynamics which creationists love to cite wrongly. It also brings one up-to-date on the arguments about the origin of life, the age of the earth, the nature of the fossil record and the origin and evolution of man. In all Young punctures the creationists' hot air balloon again and again.

Young's major conclusion, that "... as science, Creationism is a fraud," becomes abundantly clear throughout. I highly recommend this book for any readers who are helping

themselves and others sort out the nonsense the creationist establishment is producing.

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## ELEMENTARY SCIENCE

### PRIMARY SCIENCE . . . TAKING THE PLUNGE

ed. by Wynne Harlen. 1st ed., 1985. Heinemann Education Books Ltd. (22 Bedford Square, London, WC1B3HH) 116 p. \$15.00 softback.

This rather short book is intended for prospective and inservice teachers of the British school system, primary level. For the American educational system this can be interpreted as grades K-8. The book's uses are twofold. It would be an excellent supplement or resource in undergraduate or graduate elementary science methods courses, or it could be justifiably used as an assigned textbook for these same courses.

The text is exceedingly well written, interesting, and, most importantly, practical and functional. The eight chapters include topics such as making a start in teaching science, handling student questions, student record keeping, and helping students to raise questions, to observe, to plan investigations and to take into account their own ideas. Each chapter is practical and utilitarian and includes a summary and specific guidelines for implementation. Moreover, each chapter is based on the various authors' experiences and is soundly grounded on research into the teaching and learning of science.

Like all books, there are shortcomings, albeit, in this text's case the deficiencies are quite minor. For example, the addresses and institutions of the contributing authors are not provided. This oversight makes it difficult to communicate with an author if a reader were more interested in a particular topic. There are a few line drawings, but more illustrations would be helpful in clarifying certain ideas. This is not a criticism, but readers need to be apprised that this book was not written as a "methods" textbook. For example, there are no chapters on storing equipment, student evaluation, objectives, children's intellectual development, etc. Nor are the chapters sequenced in any particular order. In essence, the reader can choose a topic as it relates to their specific priority or concern. In this re-