LETTERS

Punctuated Equilibrium and the Fossil Record: T. J. M. Schopf and A. Hoffman; S. J. Gould

EDITORIAL

Perspective on Agricultural Research: O. G. Bentley

ARTICLES

Mariner Mark II and the Exploration of the Solar System: M. Neugebauer

Cell Adhesion Molecules: G. M. Edelman

The Threat of Soil Erosion to Long-Term Crop Production: W. E. Larson, F. J. Pierce, R. H. Dowdy

NEWS AND COMMENT

NYU’s Malaria Vaccine: Orphan at Birth?

Dioxin’s Uncertain Legacy

Nestlé Letter Stops NIH Talk

Wyngaarden Sets Policy Agenda for NIH

Reagan Refuses to Budge in Weapons Talks

Briefing: Who’s Who in the Social and Behavioral Sciences; Reagan Orders Review of Controls on Research; Top Health Policy Official Leaving OSTP

RESEARCH NEWS

Catalysis: “No Longer a Black Art”

Promiscuous DNA Leaps All Barriers

CERN Reports First Vector Boson Evidence

ASSOCIATION AFFAIRS

1982 Annual Report of the Executive Officer: W. D. Carey

AAAS NEWS

AAAS Members Share Their Experience with Local Science Museums; AAAS Socio-Psychological Prize; Membership Dues Increase Announced; Grants Offered to Foreign Graduate Students to Attend AAAS Meeting; For the Library; Western Divisions Will Meet Together in 1983
BOOK REVIEWS
Books Received .............................................................. 488

REPORTS
Ammonium-Nitrogen in Green River Formation Oil Shale: J. E. Cooper and W. S. Evans................................. 492
Oncogene from Human EJ Bladder Carcinoma Is Located on the Short Arm of Chromosome 11: B. de Martinville et al. 498
Drug-Induced Alterations of Cytokeratin Organization in Cultured Epithelial Cells: L. W. Knapp, W. M. O'Guin, R. H. Sawyer 501
5' Viral and Human Cellular Sequences Corresponding to the Transforming Gene of Simian Sarcoma Virus: S. F. Josephs et al. 503
Leaf Dimorphism in Aquatic Angiosperms: Significance of Turgor Pressure and Cell Expansion: P. A. Deschamp and T. J. Cooke 505
A Fossil Noctuid Moth Egg from the Late Cretaceous of Eastern North America: L. F. Gall and B. H. Tiffney ........ 507
Primitive Ducts of Renal Dysplasia Induced by Culturing Ureteral Buds Denuded of Condensed Renal Mesenchyme: M. Maizels and S. B. Simpson, Jr. 509
Expression of a Cellular Oncogene During Liver Regeneration: M. Goyette et al. 510
Development of the Place Principle: Acoustic Trauma: E. W Rubel and B. M. Ryals ............................................ 512
Development of the Place Principle: Tonotopic Organization: W. Lippe and E. W Rubel ....................................... 514
Development of Hindlimb Locomotor Activity in the Bullfrog (Rana catesbeiana) Studied in vitro: D. J. Stehouwer and P. B. Farel 516
Technical Comments: Thermoregulation and Mate-Selection in Fowler's Toads?: K. A. Christian and C. R. Tracy; L. Fairchild .... 518

COVER
Erosion from a 9-centimeter rain falling in 45 minutes in mid-May 1982 on a field in Woodbury County, Iowa. The area received as much as 23 centimeters of rain during the week. Erosion was estimated to be as much as 330 tons per hectare (2.5 centimeters). About 90,000 hectares of cropland were heavily damaged by the storm. See page 458. [Lynn Betts, Soil Conservation Service]