LETTERS  Pesticide Resistance: M. J. Dover; J. K. Marquis; Heart Panel's Conclusions: D. Steinberg; C. Lenfant, B. Rifkind, I. Jacoby  582

EDITORIAL  A Department of Science?  589

ARTICLES  Perspectives on Supercomputing: B. L. Buzzbee and D. H. Sharp  591

Galileo, Planetary Atmospheres, and Prograde Revolution: G. D. Parker  597

The Agricultural Mechanization Controversy: P. L. Martin and A. L. Olmstead  601


NEWS AND COMMENT  Classification Dispute Stalls NOAA Program  612

DOD Reorganizes Management  613

Briefing: Army Agrees to New Study of Bio warfare Laboratory; U.S.–Soviet Academies to Resume Exchanges; New Peace Committee at NRC; A Science Primer for Freshman Legislators; Ashes to Ashes— to Orbit; China’s Science Academy Revamps Funding Process  614

The Technological Challenge in Africa  616

SPARX Fly Over U.S.–German Space Venture  617

RESEARCH NEWS  New Technology Aids Geophysicists  619

Testing for Trichinosis  621

Geophysics Briefing: Going with the Flow; A Dash of Aluminum-26; Mating Dance of the Two-Tailed Radio Source  622

Zeta Particle in Question  624
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

AAAS NEWS
AAAS Program Activities Taken to Africa, China, Germany, Hungary, and Israel; SWARM to Meet in Tucson in March; For the Library; Obituaries 625

BOOK REVIEWS
Physique et Physiciens en France, 1918–1940, reviewed by M. J. Nye; Soviet Scientists and the State, L. L. Lubrano; The Mechanical Adaptations of Bones, A. A. Biewener; Some Other Books of Interest; Book Received 628

REPORTS
Pollution Monitoring of Puget Sound with Honey Bees: J. J. Bromenshenk et al. 632


Raman Microprobe Evidence for Lignin Orientation in the Cell Walls of Native Woody Tissue: R. H. Atalla and U. P. Agarwal 636

Early Biochemical Effects of an Organic Mercury Fungicide on Infants: “Dose Makes the Poison”: C. A. Gotelli et al. 638

Flurbiprofen: A Potent Inhibitor of Alveolar Bone Resorption in Beagles: R. C. Williams et al. 640

Use of Restriction Fragment Length Polymorphisms to Determine the Clonal Origin of Human Tumors: B. Vogelstein et al. 642


Role of Chemotaxis in Establishing a Specific Nitrogen-Fixing Cyanobacterial-Bacterial Association: H. W. Paerl and K. K. Gallicci 647

A Hydrophobic Transmembrane Segment at the Carboxyl Terminus of Thy-1: T. Seki et al. 649

The Goldfish as a Retinex Animal: D. J. Ingle 651

Heat Generated by the Dark-Adapted Squid Retina in Response to Light Pulses: I. Tasaki and T. Nakaye 654

Evidence for an Antiaphrodisiac in the Sweat Bee Lasioglossum (Dialictus) zephyrum: P. Kukuk 656

Descending Efferents from the Superior Colliculus Relay Integrated Multisensory Information: M. A. Meredith and B. E. Stein 657

COVER
Trained goldfish approaching a familiar yellow rectangle amidst a multicolored “Mondrian” background. This Mondrian was photographed in “white light” but looks much the same to human observers when viewed in light with radically different spectral composition. The goldfish, as well as the human, recognizes familiar colors despite the dramatic spectral changes in reflected illuminant from each portion of the Mondrian. Thus, a relatively simple vertebrate demonstrates an efficient perceptual constancy that has hitherto been considered as a high-level brain function. See page 651. [J. Scarpetti and E. Gobbo, Rowland Institute for Science, Inc., Cambridge, Massachusetts 02142]
Editor's Summary