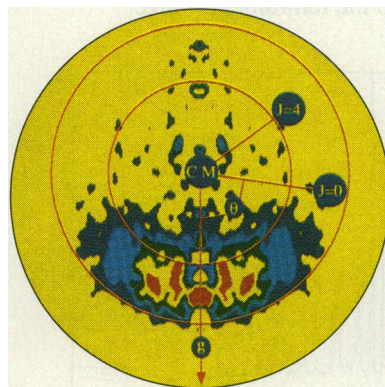
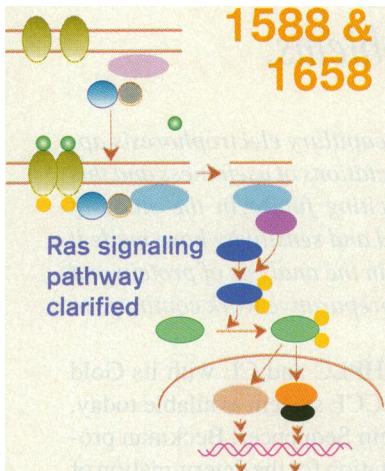


# SCIENCE



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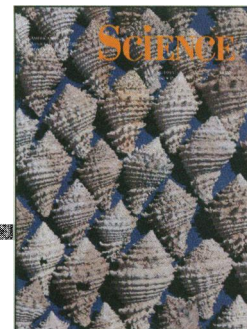
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Fossil shells of the gastropods *Hystrivasum locklini* and *Hystrivasum horridum* from the upper Pliocene Pinecrest Beds (2.0 to 3.5 million years old), Sarasota, Florida. These species are among many that became extinct during the late Pliocene only to be replaced by new species, yielding a biota whose diversity has not

changed in 3.5 million years. See page 1626. Other evolutionary events related to the closing of the Isthmus of Panama are discussed on pages 1603, 1624, and 1629. [Photo: Joe Traver; specimens are from the Paleontological Research Institution, Ithaca, NY]



## REPORTS

### Diversity and Extinction of Tropical American Mollusks and Emergence of the Isthmus of Panama

J. B. C. Jackson, P. Jung, A. G. Coates, L. S. Collins

### Diversity of Atlantic Coastal Plain Mollusks Since the Pliocene

W. D. Allmon, G. Rosenberg, R. W. Portell, K. S. Schindler

### Divergence in Proteins, Mitochondrial DNA, and Reproductive Compatibility Across the Isthmus of Panama

N. Knowlton, L. A. Weigt, L. A. Solórzano, D. K. Mills, E. Bermingham

### Large Odd-Numbered Carbon Clusters from Fullerene-Ozone Reactions

S. W. McElvany, J. H. Callahan, M. M. Ross, L. D. Lamb, D. R. Huffman

### Identification of a Sex Pheromone from a Spider

S. Schulz and S. Toft

### Structural Basis of Amino Acid $\alpha$ Helix Propensity

M. Blaber, X. Zhang, B. W. Matthews

### A Nonpeptidyl Growth Hormone Secretagogue

R. G. Smith, K. Cheng, W. R. Schoen, S.-S. Pong, G. Hickey, T. Jacks, B. Butler, W. W.-S. Chan, L.-Y. P. Chung, F. Judith, J. Taylor, M. J. Wyratt, M. H. Fisher

### Unidirectional Spread of Secondary Sexual Plumage Traits Across an Avian Hybrid Zone

T. J. Parsons, S. L. Olson, M. J. Braun

### Evidence of DNA Bending in Transcription Complexes Imaged by Scanning Force Microscopy

W. A. Rees, R. W. Keller, J. P. Vesenka, G. Yang, C. Bustamante

### DNA Sequence Determination by Hybridization: A Strategy for Efficient Large-Scale Sequencing

R. Drmanac, S. Drmanac, Z. Strezoska, T. Paunesku, I. Labat, M. Zeremski, J. Snoddy, W. K. Funkhouser, B. Koop, L. Hood, R. Crkvenjakov

### Synthesis of Polycrystalline Chalcopyrite Semiconductors by Microwave Irradiation

C. C. Landry and A. R. Barron

### Proliferation of Human Smooth Muscle Cells Promoted by Lipoprotein(a)

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### Complexes of Ras-GTP with Raf-1 and Mitogen-Activated Protein Kinase Kinase

S. A. Moodie, B. M. Willumsen, M. J. Weber, A. Wolfman

### Effects of cAMP Simulate a Late Stage of LTP in Hippocampal CA1 Neurons

U. Frey, Y.-Y. Huang, E. R. Kandel

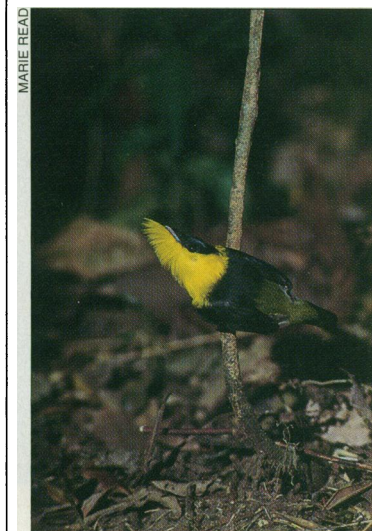
## TECHNICAL COMMENTS

### Explaining Fruit Fly Longevity

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### Compositional Interpretations of Medfly Mortality

J. W. Vaupel and J. R. Carey



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Courtship display of the golden-collared manakin

## Indicates accompanying feature

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