

# Editorial

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*S Mahadevan, Associate Editor*

The origin and evolution of life on this planet is one of the most fascinating subjects. The theory of evolution by natural selection, proposed jointly by Charles Darwin and Alfred Russell Wallace in the 19th century, offered an elegant explanation for the presence of the wonderful variety of life forms on earth. Today, evolutionary biology is an enterprise that incorporates both traditional subjects such as taxonomy and systematics as well as molecular biology, genomics and mathematical modeling. The field of molecular evolution relies on the presence of silent mutations that accumulate in the genome over evolutionary time, providing a scale to measure the divergence of species. It is undeniable that we have to forge ahead and gain expertise in the exciting developments that take place in the field of molecular biology. However, this cannot be at the exclusion of the classical subjects such as botany, zoology, microbiology, genetics, biochemistry and geology. Many universities are unfortunately closing down these departments that were their strength in the past or are converting them to departments of biotechnology/genetic engineering. This retrogressive move is fast creating a generation that is technically oriented, but is totally unaware of the exciting questions in science. Those whom we train are unable to even identify a new species of plant or animal. Two articles in this issue, one on the Cambrian explosion of life forms and another on Coral Reefs, reinforce the need for the study of traditional subjects to understand and conserve the wonderful diversity of life on this planet.

This issue of *Resonance* features Nobel Laureate Heyrovský, the discoverer of the electrochemical method of polarography that has wide applications in chemistry, physics and biology. The life of Heyrovský once again demonstrates that a truly committed scientific mind is not daunted by challenges such as war in the pursuit of scientific problems, a feature shared by many great scientists whose biographies have been detailed in these pages.



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