

SCIENCE'S COMPASS

according to season; calculations from the breeding communities reveal high indexes (3): species diversity, 3.58; species richness, 17; and kilometric abundance, 179.7. Substantial populations of wood mice, rabbits, and house mice and small colonies of hares, cottontails, and foxes living in the park are useful biological reagents for risk assessment because of their long-term exposure to TCDD. We studied gross morphology features that are endpoints of the action of xenoestrogen-like molecules such as TCDD, even at doses below those that exert maternal effects (4). In fetuses (16 rabbits, 38 house mice) and newborns (9 and 17), we found no signs of TCDD action. The number of corpora lutea in pregnant females did not differ significantly from the number of living implants plus reabsorptions (which were very low and similar to those of the control animals). Male reproductive organs and the germ cells cytodifferentiative process were regular in 9 rabbits and 21 house mice: there were no lacuna between Sertoli and gonial cells and no vacuolization of Sertoli cytoplasm; the cell number and composition of the stages of the seminiferous epithelium cycle resulted in a regular histological architecture; a sperm morphology (mutagenic) test was

not significant; the sperm aneuploidy rate was not significant; and the sperm comet assay (5) showed DNA comets (in a low percentage, 3 to 4%, as in the controls), with a length more like that of the control sperm than that of the sperm radiated at a final dose of 8 rad. The number of bone-marrow micronucleated polychromatic erythrocytes (MPCEs) per 1000 PCEs (a mutagenic test) was never higher than 0.74 ± 0.27 in any experimental group. The overall view of our Seveso park findings suggests that the biological risk for TCDD does not differ significantly from that of other parks. This conclusion is supported by the TCDD liver concentrations of the animals caught in the park (4.3 ± 0.4 versus 7.2 ± 2.9 picograms per gram of fat and 29.5 ± 13.8 versus 41.3 ± 9.5 for Seveso versus controls in rabbits and house mice, respectively). The successful recovery of the 43-hectare area by the foundation of an urban park suggests Seveso as a study model for restoration ecology.

Silvia Garagna, P. G. Rubini, C. A. Redi, Laboratorio di Biologia dello Sviluppo, Dipartimento di Biologia Animale, Università di Pavia, 27100 Pavia, Italy. E-mail: garagna@ipv36.unipv.it; **M. Zuccotti**, Istituto di Istologia ed Embriologia Generale, Università di Parma, Via Volturno 39, 43100 Parma, Italy; **A. Meriggi**, Laboratorio di Ecoetologia,

Dipartimento di Biologia Animale, Università di Pavia; **R. Fanelli**, Istituto di Ricerche Farmacologiche "Mario Negri," Via Eritrea 62, 20157 Milano, Italy; **S. Facchetti**, Environment Institute, European Community Joint Research Center, 21020 Ispra, Italy

References and Notes

1. A. P. Dobson, A. D. Bradshaw, A. J. M. Baker, *Science* **277**, 515 (1997).
2. A. Hay, *Nature* **262**, 636 (1976).
3. J. Krebs, *Ecological Methodology* (Harper & Row, New York, 1989).
4. H. M. Theobald and R. E. Peterson, *Toxicol. Appl. Pharmacol.* **145**, 124 (1997).
5. D. W. Fairbairn *et al.*, *Mutat. Res.* **339**, 37 (1995).
6. Supported by "Fondazione Lombardia per l'Ambiente."

CORRECTIONS AND CLARIFICATIONS

In the NetWatch item "Irish lass invents crypto code" (29 Jan., p. 599), the third, fourth, and fifth sentences of the second paragraph should have read, "Like RSA, Flannery's code is a public key method—part of the key is public, rather than kept secret by the two people using it—and hinges on the difficulty of factoring the product of two large prime numbers. But Flannery uses such products to encode a message using a different algorithm from RSA, one that involves 2-by-2 matrix multiplication. This approach is faster than RSA at higher security levels, Flannery says."

Are you looking to isolate mRNA from precious, Micro-sized samples? Take a closer look...

Dynabeads® mRNA DIRECT™

Micro Kit

- **INCREASED SENSITIVITY**
Reproducibly isolate DNA free, intact mRNA from small numbers of cells.
- **HIGHER PURITY**
Fewer steps and decreased handling ensure no sample degradation. Effective removal of all PCR inhibitors.
- **SAVES TIME**
Simple procedure completed in a single tube in only 15 minutes.

mRNA Isolation for RT-PCR Amplification



DYNAL®

1 800 638 9416

Circle No. 69 on Readers' Service Card

5 Delaware Drive • Lake Success NY 11042
Tel. 516-326-3270 • Fax. 516-326-3298