

the resources that depend on energy, have been experienced recently and much more intensely than at any time in the history of the United States. With most Americans lacking in any personal experience with the realities of deprivation, this country luxuriates in debate, searching for near-zero hypothetical risks to man and environment from nuclear and fossil energy, while the far greater real risks of inaction grow and multiply.

The European determination and progress on the breeder highlights the importance of maintaining our momentum with this energy option so that it may be available if the great hopes for conservation and for other, more speculative, technologies are not fully realized in this century.

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Notes

1. This commentary represents our personal views and does not necessarily reflect the views of EPRI or of electric utilities.

Marihuana Effects

Thomas H. Maugh II, in his article "Marihuana: New support for immune and reproductive hazards" (Research News, 28 Nov. 1975, p. 865), includes an account of our work which, unfortunately, is a mixture of information from two different sets of experiments (1). He states that we "observed a variety of abnormalities in the sperm of men who have smoked cannabis for many years. These abnormalities include changes in lipid concentrations, protrusions of chromatids from the nucleus, and marked changes in the balance of acidic and basic amino acids in the histone proteins that encapsulate the sperm DNA. The significance of these changes is unclear, however, as Stefanis has found no ill effects definitely associated with them." Our only finding from the sperm study was a low, arginine-rich protein (protamine) content in sperm nuclei, indicative of deviant maturation (2). Reproductivity of these donors seemed not to be affected. As stated in our article (1), "this would be consistent with our finding that despite the low protamine content, the sperm heads of the users display the normal species-specific shape which is an indicator of normal condensation and reproductive capacity" (3).

The other findings, incorrectly described by Maugh, were actually abnormalities in peripheral blood cells of chronic cannabis users, and they include the following: low

membrane phospholipids, protrusions of heterochromatin from the nucleus, and changes in the normal complement of histones and nuclear acidic proteins. Since these findings were not associated with overt blood pathology, they may represent compensatory changes resulting from a primary effect of cannabis.

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2. B. L. Gledhill, M. P. Gledhill, R. Rigler, Jr., N. R. Ringertz, *Exp. Cell Res.* **41**, 652 (1966).
3. J. MacLeod and R. Z. Gold, *Fertil. Steril.* **2**, 394 (1951).

"Extation"

There is a need for a single word to describe the status of a species whose population has been reduced to such a low level that it can no longer function as a significant part of its normal ecosystem [as in the case of the California condor (*Gymnogyps californianus*), the whooping crane (*Grus americana*), and the black-footed ferret (*Mustela nigripes*)] or to the point where there is considerable doubt whether the species remains extant [the status of the ivory-billed woodpecker (*Campephilus principalis*), the Eskimo curlew (*Numenius borealis*), and the Caribbean monk seal (*Monachus tropicalis*)]. The use of an adverb—nearly, probably, almost, perhaps—or phrase to modify the adjective "extinct" may merely mask our ignorance, implies an irreversible state, is wordier than necessary, and is probably conceptually incorrect. Extinction, like pregnancy and uniqueness, is not subject to degree. Further, such terms are basically numerical and only by inference convey any biological information.

I propose the word "extaille" (pronounced ex-tail) to fill the need expressed above. Extaille is based on the Middle English adjective "taille," meaning cut, trimmed, or limited. As a noun it can refer to what is left over after cutting and trimming. It is the root of the word "tailor" and of "tailings" (from a mine). The prefix "ex" brings the root into consonance with other words that describe the biological status of a species—"extant" and "extinct"—and further suggests a remnant "from" a formerly more abundant popu-

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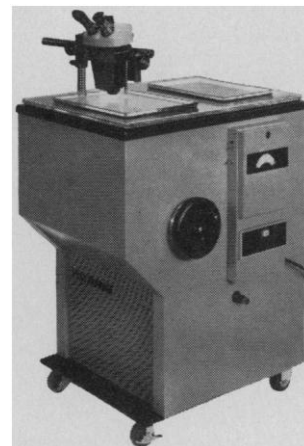
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