

Letters

West Germany's Science Funds

Walsh's excellent interpretation of West Germany's science policy (22 Mar., p. 1340) could be complemented with the following clarifications and additions:

1) The \$1.25 million of new federal science funds for oceanographic research this year (to be increased to \$6.5 million by 1971) is a welcome addition to the present \$7 million spent annually on ocean research by several Länder, the Deutsche Forschungsgemeinschaft, and various federal agencies. Main target areas of this research are world food problems, deep-sea technology, recovery of minerals, and coast protection.

2) In addition to the \$166 million for nuclear research and technology in 1968, \$41.75 million have been allocated to EURATOM for cooperative projects carried out in Germany. Also under this heading there is a provision for the first time of \$14.25 million to the nuclear research center at Jülich for operation and expansion. Furthermore, an initial \$1 million have been allocated for the development of plutonium technology of value in Germany's high-speed breeder reactor program; and a new \$600,000 earmarked for the development of processes in direct energy conversions (that is, thermionic diodes as converters for nuclear heat in reactors, and isotope batteries for the generation of electricity).

3) The amount of \$81.25 million allocated by the federal government in 1968 for space research also includes Germany's contributions to international organizations. Emphasis in this area is on commercial and research satellites.

4) New funds have been made available for the creation of about eight regional computer complexes.

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Alluvial-Flat Redwoods: Impact of Flood Control

In the article "Preservation of coast redwood on alluvial flats" (12 Jan., p. 157), Stone and Vasey have done a splendid job of summarizing the growth characteristics of the coast redwood and describing the effect of fire and silt deposition in eliminating competing forest species. They conclude that the survival of the giant redwood groves is threatened by the proposed construction of flood control dams unless man employs such tools as herbicides, fire, and chainsaws as a substitute for floods and resultant siltation.

Whether any of these tools should be used for park or forest improvement is beside the point. The facts do not support the conclusion that floods and siltation are necessary for the survival of

these magnificent redwood groves in the Eel River basin.

Since minor differences in soil, exposure, and precipitation often result in major variations in the species composition of a forest, I will confine my comments to the redwood forests of the Eel River basin.

First, it should be noted that large or "giant" redwoods, that is, over 150 cm in diameter at breast height, are not confined to the alluvial flats that are subject to flood and silt deposit. They are found in almost solid stands in this basin wherever the following conditions coexist:

1) Adequate soil depth for nutrition and prevention of windthrow.

2) Benches, flats, and slopes sufficiently moderate to prevent soil creep or excessive erosion.

3) Adequate summer moisture to substitute for this region's deficient rainfall. This substitute moisture is provided by either moderate depth of water table (alluvial flats), underground seepage from higher slopes, or condensation of ocean summer fogs. Most of these groves and forests are above maximum flood level and many of them show no evidence of fire scar or fire-blackened bark.

The survival vigor of the solid stands of redwood is based on the fact that although fire and siltation may help,

On Manly's Less Stately Jargon

Although I had no trouble following Merton's paraphrasing of Scriptures, I had an awful time understanding Manly's criticism (15 Mar., p. 1185) as expressed in one nine-line sentence. Perhaps paraphrasing Manly might help other equally baffled readers:

<i>Manly</i>	<i>paraphrase</i>
Objective consideration of style preference among a small but carefully selected subset of the literate scientific readership	At cocktails last night my buddies and I, <i>Scientific American</i> readers,
would tend to indicate that the language of the gospels in the King James version	thought the New Testament
demonstrates a comprehensibility and clarity	was
not inconsiderably in excess of that exhibited	better written
by the less stately jargon of Professor Merton.	than Professor Merton's article.

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