

or four of the spherules between the successive bubbles of entering air.

CHARLES H. GREENE

RADCLIFFE COLLEGE

### SEASIDE SHRUBS: WIND FORMS VS. SPRAY FORMS

ON the basis of recent observations on the lower Cape Fear Peninsula, we have found that the so-called "wind-form" shrubs owe their form not to the wind *per se* but to the sea spray carried by high winds. Marked injury of all the young shoots exposed on the southeast side of the shrub masses (wax myrtle, yaupon and live oak) was observed following a high southeast wind which persisted for a period of nineteen hours and reached a maximum well above thirty miles per hour. We found this injury only on shrubs located near the strand; those equally exposed to the same wind velocity but at a greater distance from the ocean showed no injury whatever. And the degree of form modification was strictly correlated with the amount of injury found. Relatively low temperatures and cloudy weather prevailed during the time of this wind. Abundant soil moisture was also present, so that the drying effect of the April wind may be ruled out as an important factor.

Injured shoots and slightly protected uninjured ones were washed in distilled water and the water tested for chlorides, using silver nitrate solution. A marked contrast was found in the concentration of chlorides on the surface of exposed shoots *vs.* nearby ones slightly protected.

Immature shoots of a number of woody plants were hand sprayed with sea water and a pattern of injury obtained similar to the injury recently observed on the seaside shrubs.

Plant ecologists have generally attributed the strongly modified form of the seaside woody plants to wind alone. Our observations definitely indicate that the principal factor in producing these "wind forms" is the killing action of sea water carried as fine spray. The young, tender, exposed shoots are so severely injured by the spray that only the protected laterals and leeward terminals develop, resulting in the characteristic, compact, repressed, sloping form.

These peculiarly shaped seaside shrub masses should be called "spray forms" rather than "wind forms."

B. W. WELLS

I. V. SHUNK

NORTH CAROLINA STATE COLLEGE

## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

### MINUTES OF THE EXECUTIVE COMMITTEE

THE spring meeting of the executive committee of the association was held in the Hotel Commodore in New York City on April 17 and 18. All members of the executive committee were present with the exception of the Pacific Coast representative, who was duly excused. The minutes of the Atlantic City meetings as approved by mail were presented for record.

In response to an inquiry from affiliated state academies it was voted to reaffirm previous action regarding academy research grants to the effect that these are primarily for specific research projects according to the plan approved and transmitted to all academies and not for meeting the costs of printing the publications of any academy.

Itemized statements regarding the finances of the offices of the permanent secretary and the treasurer, in regard to the present status of membership and of means to be taken to extend the membership of the association were laid before the committee and after general discussion approved.

In order to clear up confusion and possible misunderstanding it was voted that section secretaries who prepare the programs and attend the Denver meeting to take charge of the work of the sections are to be

reimbursed for travel and expense in accordance with the by-laws.

Correspondence from Mr. Charles S. Baker, legal counsel, was presented. The permanent secretary reported (1) the receipt of an official ruling from the Massachusetts Department of Public Welfare to the effect that under the law the American Association for the Advancement of Science was not required to file returns; and (2) that affidavits by our officers and power of attorney as requested by the legal counsel had been prepared and sent Mr. Baker for use in discussing the taxation of the American Association for the Advancement of Science before the Bureau of Internal Revenue.

Various requests were presented that the travel expenses of certain speakers at the Denver meeting be paid from association funds. The committee expressed its regret that no funds were available to meet these requests.

An extended report was made by the permanent secretary on Occasional Publication No. 4, which is to contain the papers read at the cancer symposium organized by the Section on Medical Sciences for the Atlantic City meeting.

On recommendations of the respective sections fel-