the library has to offer. A recent estimate places the number of bound volumes over 100,000. More than 2,200 current periodicals are now coming in by subscription and by gift. The collection covers such fields as those of the basic sciences and the industrial arts, and includes meteorology, building and construction, aeronautics, printing, mining and metallurgy, and radio.

The bound periodicals of many scientific academies and societies extend without interruption back to the 17th and 18th centuries. For some of the more recent sciences the sets are complete—for example, all of the United States Geological Survey publications are provided, and several sets of the State Geological Survey publications are nearly complete.

The reader may sit in a reading room of the library and have books brought to him by a library attendant from floors above and below or from the adjacent building. Or, in the periodical reading room, he may ask for any of the 2,200 files of periodicals, including the latest issues. The present full-time staff is eleven people, including four professional librarians.

JOHN R. BALL

*University of Kansas City*

## Atmospheric Pressure and Bird Flight

While the following observations have no direct bearing on the discussion of bird migration, they may contribute something as regards the effect of atmospheric pressure on bird flight.

In the fall of 1933 I was aboard a slow cargo ship on the great circle course, Lisbon to New York. A small West Indian hurricane had started north about the time we left Lisbon; it should have been entirely dissipated long before we "went over the hill." But the storm was also slow, and was still meandering up the coast when we reached the Newfoundland Banks. By calculation, it was due to strike inland at New York at the time we would be off Boston; our course was shifted to the eastward, to run well outside and ride in behind it.

This proved rather to be a collision course, for the storm recurved and followed the Long Island coast outward, with the result that we ran squarely into it off Nantucket, in a quadrant and at an angle which no navigator would deliberately have chosen. There was nothing then to be done but heave to and hope for the best; and, in due time, the storm center passed directly over us.

Any hurricane is a major disturbance, but fortunately this one was not of maximum area or intensity. It was, however, still intact and perfectly formed; the center, of course, was characterized by clear sky, absence of wind, and the confused seas piling one atop another from the four quadrants. The unexpected feature, however, was the fact that the center area was clearly defined by the presence of innumerable birds, land and shore birds of all sizes which had been sucked up and carried along, as helpless as if confined within a room except that the progressing storm forced them to keep in constant flight.

Starved, parched and exhausted, those that could sought refuge on the ship; rails, rigging and lifelines were covered with them; the decks were awash with drowned bundles of feathers. More than 30 kinds of birds were counted, including an owl. Many were taken inside and every effort was made to save them, but only one, a long-legged shore bird, survived.

The most pitiful case was that of a great black wild duck which tried desperately to beat its way to the ship from only a few yards off. Its "flight ceiling" was so low that its powerful wings could not raise it above the crest of the seas, which were about mast high. Three times we watched it fly straight into an oncoming sea, and emerge, still "flying" from the other side; the fourth time it did not reappear.

Whether pressure and other atmospheric factors accounted for the low flight that caused this one and so many others to drown, or whether it was weakness alone, I do not know. It was certainly the pressure system that placed them in this tragic situation. This example would seem to be the reverse of that cited by C. Suffern of England, whose redwings were carried along the *outer edge* of the pressure system, presumably on the wind. These were in the wind-free center, but were carried out to sea because they could not break through the walls of wind. It was curious that there were no sea birds among them; yet the storm, although it had hugged the coast, had not gone inland at any point. Evidently they had been picked up by the fringe winds and blown into the center, much as the seas were dragged in. Since it was entirely involuntary on the part of the birds, this mass displacement could not, of course, be considered a migration; but it might be assumed that migratory birds would attempt to avoid such pressure systems.

DOROTHY FORD MAYHEW

*Institute of Geographical Exploration,*
*Harvard University*

## On the High Prices of Scientific Books

This is in the nature of a protest against the present high prices of scientific books. In recent years the cost of books has doubled and tripled until it is now virtually impossible for many scientific workers to own volumes they need and this is to say nothing of the poor student, who has to struggle to pay for texts that are absolutely essential.

In my opinion, a personal library, however small it might be, is an inestimable aid to a student in gaining and *retaining* a grasp of his subject. The present situation forces many to sell their current texts to pay for the ones needed in the following semester.

The prices of many articles are falling, and we can only hope that books will follow suit. As a remedial measure, might I suggest the European procedure, whereby books are issued in both unbound and bound form. This would reduce the price of many books by about 25 percent. I see no reason for paying $4.00 for a 147-page book—the price asked for a recent publication.

JOHN R. LOWRY

*General Foods Corporation,*
*Hoboken, N. J.*