



FRESHWATER BIOLOGICAL ASSOCIATION

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EYH/HG

27 January 1988

To whom it may concern

At the request of Professor G.E.G. Sargent, of the University of Queensland, Australia, and for the purposes of 'substantiation', this is to confirm that; in conjunction with the Freshwater Biological Association at Ambleside, he carried out a series of geophysical surveys of 5 lakes; namely Windermere (an extension of work on a previous visit), Ullswater, Wastwater, Ennerdale Water and Crummock Water.

This work was carried out during the months June, July and August of 1987. The Association gave considerable support, as it did during 1983, in providing laboratory space and facilities, the use of vessels and associated vehicles, and some but not all, supporting staff. The seismic equipment and position fixing equipment was provided by and staffed by Prof. Sargent.

The work was natural progression from work carried out by Prof. Sargent during previous visits. On this occasion a greater precision was afforded by the use of precision position fixing equipment and improvements in detail to the system used. This has provided a considerable amount of scientific information concerning the geomorphology of the beds of these lakes which is greatly valued by the Association.

Yours sincerely,

Dr E.Y. Haworth
Palaeolimnologist



Resume of work.

Early 60's (63?) Seismic traverses of Lake Windermere were made in a joint project using sparker equipment, with Howells (? of Manchester Inst. of Tech. ?) and reported by him in a publication.

1979. Systematic seismic traverses of Lake Windermere were made by Sargent, working from Bath University, using high resolution boomer.

1983. Systematic seismic traverses were made of Esthwaite Water and of Lake Conniston using high resolution boomer. Precision position fixing by Decca Trisponder was employed. Uncontrolled, but systematic traverses were also made of Lake Windermere. This work was carried out in conjunction with the Freshwater Biological Association at Hawkeshead.

1987. Further systematic surveys of Lake Windermere, with precision position fixing being used for the Southern Basin, were carried out.

For the first time systematic seismic traverses were made, using precision position fixing and high resolution equipment, of West Water, Ennerdale Water, Crummock Water and of Ullswater.

The recording of seismic signatures of the High Resolution Seismic Source at various depths were recorded for future analysis.

This work was carried out in conjunction with the Freshwater Biological Association at Hawkeshead.

Tentative draft letter:

To whom it may concern:

This is to confirm, at the request of Professor G.E.G. Sargent, of the University of Queensland, Australia, for the purposes of "Substantiation", that he carried out in conjunction with the Freshwater Biological Association at Hawkeshead, geophysical surveys of Lake Windermere; and for the first time ever, of Ullswater, of West Water, of Ennerdale Water and of Crummock Water.

This work was carried out during the months June, July and August of 1987. The Association gave considerable support, as it did during 1983, in providing laboratory space and facilities, the use of vessels and associated vehicles, and some but not all, supporting staff. The seismic equipment and position fixing equipment was provided by and staffed by Prof. Sargent.

The work was a natural progression follow on from work carried out by Prof. Sargent during previous visits. On this occasion a greater precision was afforded by the use of precision position fixing equipment and improvements in detail to the system used.

--Space for your concluding critique--