

Second conference of pollen workers, Dublin, 1949

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Second Conference of Pollen Workers, Dublin, 1949

By G. F. Mitchell, Dublin

In the autumn of 1946 Dr. H. Godwin, F.R.S., arranged an informal conference in Cambridge for workers interested in the Quaternary history of north-west Europe with special reference to its elucidation by means of pollen analysis. A generous grant from the British Council made it possible for Danish, Dutch, French and Norwegian representatives to attend and other workers from England, Ireland, Scotland and Wales were also present.

When the Ninth International Phytogeographical Excursion decided to visit Ireland in 1949 it immediately became obvious that botanists with special interest in the Quaternary history of north-west Europe would be prominently represented among the members of the Excursion, and it was decided to organise a short informal conference to take place in Dublin after the end of the excursion. Consequently a short conference on current problems concerning the late-glacial and post-glacial history of central and north-west Europe took place in the Department of Geology, Trinity College, Dublin, on July 25th to 28th, 1949. The conference was organised by the Committee for Quaternary Research in Ireland (Secretary: G. F. Mitchell), supported by grants from the Royal Irish Academy and Trinity College, Dublin. The following workers were present:— Dr. Blackburn (Newcastle), Professor Cain (Michigan), Professor Clapham (Sheffield), Dr. Conway (London), Dr. Farrington (Dublin), Professor Firbas (Göttingen), Professor Gams (Innsbruck), Dr. Godwin (Cambridge), Dr. Iversen (Copenhagen), Mr Jennings (Leicester), Professor Jessen (Copenhagen), Miss Kertland (Belfast), Dr. Lüdi (Zürich), Professor Markgraf (Munich), Mr Mitchell (Dublin), Professor Negri (Florence), Professor Nordhagen (Oslo), Miss Parkes (Dublin), Dr. Simpson (Edinburgh) and Dr. Welten (Spiez).

Six sessions were held. At first session (Monday evening, July 25th) there were exhibits of pollen grains and other plant fossils from late-glacial deposits in Ireland, pollen of *Helianthemum* from

late-glacial deposits in Denmark, and graphs and figures illustrating the possibility of separating species of American conifers by size-frequency studies. At the second session (Tuesday morning, July 26th) there was a discussion on the late-glacial period in central and north-west Europe which was opened by Professor Jessen, Professor Firbas and Dr. Lüdi. Messrs. Cain, Gams, Godwin, Iversen and Mitchell took part in the discussion in which it was agreed that the ice-advance marked by the Athdown Mountain moraines in Ireland, the Fenno-Scandian moraines in Scandinavia and the Gschnitz moraines in the Alps was essentially simultaneous everywhere and occurred in the Younger Dryas period (Zone III of Jessen). Professor Firbas's contribution to the discussion has been printed in the *New Phytologist*¹. The third session (Tuesday afternoon, July 26th) was a discussion on the Boreal/Atlantic transition and the stages of marine transgression in north-west Europe. Dr. Godwin and Dr. Blackburn opened the discussion to which Miss Conway, Messrs. Farrington, Firbas, Iversen, Jessen, Lüdi, Mitchell, Nordhagen and Webb contributed. It was agreed that there had been a large early eustatic rise in sea level perhaps of the order of 125 m, and that this had chiefly taken place in the Boreal period while the further rise during the Atlantic period had been very much smaller. There was a later rise perhaps of the order of 3—5 m during the early centuries of the Christian era

On Wednesday, July 27th, there was an excursion by bus to the post-glacial raised beach in the vicinity of Dundalk, 80 km north from Dublin. At Rockmarshall, 15 km east of Dundalk, a series of storm beaches and lagoons were examined and a kitchen midden of late Mesolithic age was seen to rest on the highest levels of the raised beach. A raised bog, 15 km west of Dundalk, was then visited and the recurrence surfaces visible in the upper layers of the ombrogenous peat were examined in detail. The party then proceeded to Knocknacran, 6 km south-west of Carrickmacross, where late-glacial deposits were examined. The section here from below upwards is as follows:—

¹ F. Firbas (1950): The late-glacial vegetation of Central Europe. *New Phytologist*, 49, 163—173.

Boulder clay laid down by the ice of the Midland General Glaciation.
Lacustrine clay (Zone I of Jessen) with remains of *Salix herbacea*.
Lacustrine chalk mud (Zone II of Jessen) with a skull and a vertebra of *Cervus giganteus* and shells of *Vertigo genesi*².

Clay mud (Zone III of Jessen) with remains of *Betula pubescens*, *Salix herbacea* and *Thalictrum alpinum*.

Post-glacial muds and peats.

Descriptions of all these localities will be published by Mr. Mitchell.

The fifth session (Thursday morning, July 28th) was a discussion on the Atlantic-Sub-boreal transition and the establishment of agriculture in north-west Europe. The discussion was opened by Dr. Iversen and Mr Mitchell, and Miss Conway, Messrs. Firbas, Godwin, Jessen and Nordhagen took part in the discussion. It was agreed that a consistent decline in the value of *Ulmus* could be found in pollen diagrams from most parts of north-west Europe and that the Atlantic/Sub-boreal transition could be suitably associated with this decline. It was thought unlikely that this decline was due to human interference with the natural woodlands as the earliest indications of agriculture seem to lie above the level of the decline. It was pointed out that the British Isles could not offer any evidence in support of the view that the Sub-boreal period was relatively dry. The sixth session (Thursday afternoon, July 28th) was a discussion on the recurrence-surfaces in the bogs of north-west Europe. The discussion was opened by Professor Jessen and Professor Clapham and was contributed to by Miss Conway, Messrs. Firbas and Gams. It was agreed that the problem was a very difficult one and that more data would have to be collected about the vegetation of the original bog surfaces immediately above and below the recurrence-surfaces, and that more detailed pollen diagrams would have to be available before it would be possible to correlate the different recurrence-surfaces seen in many bogs throughout north-west Europe.

At the conclusion of the conference the hope was expressed that it would be possible for workers in this field to meet again perhaps in Scandinavia in the not too distant future.

² A sample of this mud has since been given an age by the radio-carbon method of $11,310 \pm 720$ years. R. F. Flint and E. S. Deevey (1951), American Journal of Science, 249, p. 266.