

REPORT OF THE BETA GERM PLASM COLLECTING MISSION IN THE
IONIAN ISLANDS OF GREECE, SOUTH WEST MAINLAND OF GREECE AND
PART OF PELOPONNESES - JUNE TO AUGUST, 1980

by

Mr. B. Crombie and Mrs. Veronica McDermott Crombie

INTRODUCTION

The expedition was conducted as part of the I.B.P.G.R. (FAO) programme for the exploration and conservation of plant genetic resources.

The mission was given the following terms of reference:-

- (a) to collect seed of wild species of Beta
- (b) to collect germplasm samples in duplicate so far as possible, one duplicate for long term storage in the Gene Bank at Braunschweig, Germany
- (c) to determine the distribution of these species and their availability for use by later missions
- (d) to collect cultivated beet where possible from local plots
- (e) to determine the distribution of these cultivars, the use for which these beets are cultivated, and
- (f) to determine as far as possible the location and distribution of maximum genetic diversity for the information of future missions, and to report on the results of the mission.

The members of the collecting team were:

Mr. B. Crombie, Associate Director, Agricultural Institute, Ireland, (retired).

Mrs. Veronica McDermott Crombie, Adviser, Department of Agriculture, Ireland (retired).

Both of these members had previous experience in the collecting of *Beta maritima* in Ireland and in Greece in the Eastern Aegean Islands in 1979.

Duration and Itinerary of the Mission:

Summary of the mission's itinerary

10/6/1980	Arrived in Rome
11/6/1980 to 13/6/1980	Briefing for mission and collecting materials for expedition in FAO, Rome.
14/6/1980	Travelled by air from Rome to Athens
16/6/1980	Visited UNDP Offices in Athens and afterwards made arrangements for travelling to the Ionian Islands.
17/6/1980	Visited the Hotel Grande Bretagne, Athens to meet Mr. Souma, Secretary General, FAO, Mr. Kamberg, UNDP Resident Representative and a number of Officers engaged on FAO projects in Greece. This was at the request of Mr. Kamberg. Then travelled by bus and ferry to Zakynthos Island.
18/6/1980 to 20/6/1980	Collecting on Zakynthos and locating unripe Beta plants.
21/6/1980	Travelled by ferry and bus to Patras and then by ferry to Cephalonia Island.
22/6/1980 to 23/6/1980	Locating unripe Beta plants on Cephalonia. Travelled by ferry to Ithaca Island.
24/6/1980	Locating unripe Beta plants on Ithaca.
25/6/1980	Returned by ferry to Sami, Cephalonia and located some further unripe Beta plants.
26/6/1980 to 30/6/1980	Locating unripe Beta plants in various places on Cephalonia. Then travelled by ferry to Patras.
1/7/1980 to 3/7/1980	Collecting on Peloponneses and locating unripe Beta plants.
4/7/1980	Travelled by Flying Dolphin to Messalongi and then by bus to Levkas Island.
5/7/1980 to 6/7/1980	Collecting on Levkas and locating unripe Beta plants.
7/7/1980 to 10/7/1980	Collecting in South West Greece and locating unripe Beta plants. Returned to Patras.

11/7/1980 Travelled by bus and ferry to Zakynthos and began collecting.

12/7/1980 Visited the Ministry of Agriculture in Zakynthos. Collected several samples and returned to Patras.

14/7/1980 Visited Ministry of Agriculture in Patras and gained much information about the agriculture of the region. Then screened and cleaned samples.

15/7/1980 Travelled by ferry to Cephalonia and Ithaca. Collected samples on both islands.

16/7/1980 to 18/7/1980 Collecting samples on Cephalonia and returned to Patras.

19/7/1980 to 22/7/1980 Collecting in Peloponneses.

23/7/1980 Travelled by ferry and bus to Levkas and by boat to Meganisi Island. Searched for Beta.

24/7/1980 Collecting samples on Levkas.

25/7/1980 to 28/7/1980 Collecting in South West Greece.

29/7/1980 Travelled by bus from Patras to Athens.

30/7/1980 Visited UNDP Offices in Athens.

31/7/1980 Travelled by air from Athens to Rome.

1/8/1980 Went to FAO and delivered 86 samples of Beta seed together with the individual field reports on all these samples.

3/8/1980 Travelled by air from Rome to Dublin via London.

General report on the collecting in the Ionian Islands, South West Greece and Peloponneses in 1980.

18/6/1980 When we began collecting on Zakynthos we found that the majority of the Beta plants were very immature as compared with those of the Aegean Islands in 1979. While the Aegean plants were dried up, over ripe and had their seeds shed on 26/6/1979 we now found that most of the plants on Zakynthos were still fairly green and would not give ripe seed until about 10/7/1980.

Later we found that the same pattern was to be repeated on Cephalonia and Levkas even in a more pronounced manner as these islands were further north. In South West Mainland Greece and in the Peloponneses the plants were even later still.

We were told that it was a very late spring in Greece this year. Perhaps this region of Greece gets more rain in spring than in the Aegean. Such factors would have retarded the plants. But in some cases there was evidence that grazing by goats and sheep was the prime cause of serious retarding.

Whatever the cause, the condition of the plants as we found them necessitated the traversing of the entire territory twice and some of it three times. On the first tour we collected seeds from any plants that were ripe and noted carefully the location of unripe plants to be visited later.

Again we found as in 1979 that Beta plants were quite scarce even when the environmental conditions were favourable for them. From previous experience we knew that in Greece Beta plants were never found on rocky coasts and seldom on the edges of very sandy beaches. Their favourite habitat invariably was on silt or medium clay soils on the edge of pebbly or sandy beaches. By observing the coasts through binoculars from the ferries it was possible to eliminate vast stretches of rocky coast as useless for Beta. On each island and on the South West Mainland and on a large portion of Peloponneses every promising beach was searched only to find in very many cases that there were no Beta plants present.

Zakinthos: The island of Zakynthos was about 32 km from N to S and about 20 to 25 km from E to W. The entire west side was mountainous with peaks running up to 756 M. These mountains ran sheer down to the sea forming a steep rocky coast unsuitable for Beta. To the east of the mountains the countryside was undulating but with a good deal of fairly good land. Crops grown were cereals, maize, oranges, lemons and grapes while olives were grown everywhere mostly on second grade land and often terraced. As in all other parts of Greece it was said that these olives were planted by the Venetians 300 to 400 years ago. The trees were usually very gnarled and ancient looking. They often had big holes right through the trunks but they still appeared to be quite healthy and vigorous and bearing good crops of fruit. They were often in very extensive and continuous plantations, but with marks to indicate different individual ownerships now.

The lower slopes of the mountains carried fairly good coniferous forest while in the vicinity of villages and towns there were fine specimens of conifer and broad leaved trees.

On the south and east there were magnificent beaches often with stretches conducive to Beta. Still *B. maritima* plants were extremely scarce and difficult to find. We got only 7 samples of *B. maritima* and 5 samples of Land Race beet in Zakynthos although we searched every kilometre of the following beaches:- Argassi, Porto Zoro, Porto Roma, Yerakis, Kipseli, Alikanas, Alikes, Lake of Keri, Lagana and Kalamaki.

When we collected the samples Nos. 1, 2 and 3 on the 19th and 20th June they had good ripe seed, some of it already shed, but they were growing on steep slopes in a gullied clay bank so that they were not easily accessible to grazing animals. It may be assumed that if there was no grazing there would have been at least some ripe seed available at most locations in late June and early July.

Cephalonia: The island of Cephalonia was about 45 km from N to S and about 30 km from E to W. In addition there was the large Lixurion peninsula to the west. In general it was a very mountainous island, but there were some areas of fairly good land. Crops grown were cereals, maize, oranges, lemons and grapes. Again olives were everywhere that suited them. There was also some market gardening. On the lower slopes of the mountains there was coniferous forest, but large areas of mountain were covered by scrub. The upper reaches of the mountains were naked and barren. On some of the low land especially near towns there were fine specimens of eucalyptus, pines and various broad leaved trees. In the towns there were excellent shade trees.

As usual there were long stretches of rock bound coast where Beta would not be found. There were also numerous attractive and promising beaches. Some of these were rather difficult of access as the main coastal road usually ran on the shoulder of the mountain at up to 300 m above sea level. Such a beach had then to be reached by going down a long corkscrew road.

22/6/1980: Searched the beaches at Ormous Lourda, Katelios and Skala. Found no *B. maritima*, but at Katelios we met an old lady who had land race garden beet. It was still unripe but she promised to give us some seed later. We then went on to Poros beach and found a few *B. maritima* that were not yet ripe.

23/6/1980: Searched the whole beach from Sami to Karavomilos and for about 2 km towards Drakopoulata where the coast became rocky. At Karavomilos there was a restaurant with a water mill wheel nearby. There were also some big eucalyptus and Greek cypress trees here. Found many unripe *B. maritima* plants and noted their locations for seed collection later.

In the evening went by ferry to Ithaca Island as we were so close to it and it might have some *B. maritima*.

Ithaca: The island of Ithaca was about 25 km from N to S and in parts up to 7 km wide from E to W. But in the middle it was only 0.5 km wide. It was extremely mountainous with the mountains in most places running steeply down to the sea as cliffs or rocky coasts. There were no farm crops whatever as there was no land to grow them. In spite of the absence of farm crops it was interesting to see wild oats in many places as in all the Greek Islands. Olives were everywhere and there were some small patches of grapes. In small gardens there were melons, marrows, garden beet, beans and tomatoes, but very little of any of them. In and near the villages there were good trees - eucalyptus, accacia and cypress. The lower slopes of the mountains had a little coniferous forest and skinsos scrub. Above that the mountains were naked rock.

The beaches were few and small and sometimes not easy to reach as the main coast roads ran high on the shoulder of the mountains.

24/6/1980: On Ithaca searched beaches right around the island at Sarakinikon, Dexia, Pisso-Aeton, Aetos, Polis, Frikies and Kionion. We found no trace of Beta plants anywhere except at Polis where we found a few *B. maritima* plants at both ends of the beach. They were green and unripe.

25/6/1980: Returned to Cephalonia Island and after some searching found some more unripe *B. maritima* in the Sami region.

26/6/1980: Travelled by bus from Sami across the mountains to Argostolion. Then searched the beach from Argostolion to the lighthouse. Found several groups of unripe *B. maritima* at Katavotres. There was a restaurant at Katavotres with another water mill wheel. There was also an unusual type of well here locally referred to as the "phenomenon".

27/6/1980: Examined the area around Lixourion and found a few unripe land race garden beet. Searched several beaches south of Argostolion namely Gailon, Simotata and Irina beaches. Found no *B. maritima* but did find a small group of unripe land race garden beet which an old man had kept going for several years. (Later we got seed from him). Sample No. 29.

28/6/1980: Went by ferry to Lixourion and searched the entire coast from Lixourion south to Mandzavinata and beyond. Found several unripe *B. maritima* plants. Then searched beaches at Petanoi and Livari but found no *B. maritima*.

29/6/1980: Searched the coast around Drapano in the vicinity of Argostolion and found a few unripe *B. maritima*.

30/6/1980: Going north from Argostolion by taxi searched the beaches at Myrtou, Assos and Angon without finding any *B. maritima*. Then went on to Fiskardhon and found unripe *B. maritima* in two places near the yachting harbour.

In brief having intensively searched every promising beach in the islands of Cephalonia and Ithaca from 22/6/1980 to 30/6/1980 we found a considerable number of *B. maritima* and a few land race garden beet. However, there was not a single one of them ripe which meant that we would have to return to these islands from two to three weeks later to collect the seed.

30/6/1980: In the afternoon travelled by bus from Argostolion to Sami and then by ferry to Patras.

Peloponneses: After leaving Patras and travelling west one saw a rather narrow coastal plain for several kilometres with mountains in the background. This plain got wider and wider until the countryside was mainly flat to the inland horizon. It was fertile country growing maize, wheat and barley. There were some grapes and some olives but not as extensive as on the islands. There was also a good deal of market gardening especially for water

melons and tomatoes. Sprinkler irrigation was active in many places.

1/7/1980: Travelled to Kalogria by bus and found that the beach there was extremely sandy with many bare sand hills. Sand had even blown up a neighbouring hillside. There were no Beta plants found. Then went to Tsoukaleika beach which was much more interesting. This was part of an enormously long beach which extended in a south-westerly direction for about 20 km from Patras. It was a popular seaside resort nearly all the way.

The beach was pebbly and rather narrow. It was backed by a clay bank which suited Beta. Over a stretch of three or four kilometres we found several groups of *B. maritima* and a couple of land race plants. They were all green, but some of them had seeds which were well advanced but not ripe. There was much building development along this coast for the increasing tourist trade. In some places there was serious coastal erosion which had undermined big eucalyptus and cupressus trees. Both of these factors were diminishing the zone on which Beta grows.

2/7/1980: Went by bus to Psathopyrgos beach. This was a pebbly beach backed by some sandy clay soil. We found a few *B. maritima* but they were only half ripe. Some of these were at the western end of the beach and some at the eastern end near the Florida Hotel.

3/7/1980: Went by bus to Killini beach. This was a very broad and very sandy beach. Found no Beta. Then went by taxi to Katakolo Harbour. Found a group of *B. maritima* and some land race. In both cases they were ripe and became samples 4 and 5 respectively. Visited two camping beaches, one named Paradise and the other at Kourouta. Both were lovely sandy beaches but they had no Beta.

Then went to Kotichi which was an almost enclosed inlet of the sea known as 'The Lake'. It was about 5 km NW of Lechena. It had a good sand and pebble beach but it was not popular as the road to it was poor.

Back from the edge of the beach where the soil was a mixture of sand and silt we found plenty of ripe *B. maritima* over a distance of about 1 km. Here we got samples 6, 7 and 8.

4/7/1980 Went by Flying Dolphin to Messolongi in S.W. Greece and then by bus to Levkas.

Levkas: The island of Levkas was about 30 km from N to S and about 15 km from E to W. It was very mountainous with some peaks exceeding 1,100 m. The western side from Nikitas to the south had a steep rocky coast precluding Beta. On the eastern side there were some small sandy or pebbly beaches with long stretches of rocky coast. There was also a long beach in the south at Vassiliki. There was very little good land. A little cereals were grown and some vegetables. There were extensive areas of olives and a good deal of grapes. The lower slopes of the mountains had fairly good stands of pine and cupressus with some areas of skinsos scrub. The upper portions of the mountains were naked rock. In the towns and villages there were many broad leaved shade trees, some nearly 100 years old.

5/7/1980 Searched the banks all around the perimeter of the Levkas Lagoon. Found Beta plants in several places. Some of these were land race type and some were *B. maritima*. Perhaps some were hybrid. Most of the plants were unripe, but a few had some ripe seed. Searched the long beach along by the old windmills, but found no Beta plants.

Then went by taxi and searched several small beaches on the eastern side of the island going south from Levkas town. In most cases there were no Beta plants. But at Kilwani beach we found a number of erect Beta plants growing among the stones on a stoney beach. Both the plants and the spot on which they grew were unusual. They might have been the result of hybridising with garden beet. The seeds were just ripe and this became sample 9.

Found some more Beta plants at Lygia beach, but they were not ripe.

6/7/1980 Went by taxi and searched the following beaches:- Nikana, Nydri, Vlyho, Vassiliki and Pondi, but found no Beta plants. At Vassiliki which was a yachting port there was a great beach nearby. It was a sandy and stoney beach about 2km long, but having searched the entire length of it we found no Beta.

Then searched the beach on the NW side of the island from Tsoukalades to Nikitas. This was a beach of sand and tiny pebbles with a rugged rock background, but with a clay bank in some spots.

We found no *B. maritima*, but we did find some land race garden beets in two small fields nearby. These were not ripe yet.

Went back to the Levkas Lagoon and collected two samples of seed of *B. maritima* - Nos. 10 and 11 and one sample from land race plants - No. 12.

South West Greece This was a very varied territory ranging from barren, naked rocky mountains to medium and fairly fertile farm land. As in other parts of Greece the lower slopes of the mountains had fairly good stands of pine and cupressus, but large areas had only a scrubby vegetation. The towns had good shade trees - Eucalyptus, planes and other broad leaved trees.

There were olives everywhere on the fairly good land, which was often terraced. On very poor rocky sites the olives had been planted 10 m to 12 m apart to enable them to survive under drought conditions. Grapes were grown in many places. On the more normal farm land there were crops of maize, cereals and some market gardening. In the region around Agrinion the principal crop in which they specialised was tobacco. Much of this was sprinkler irrigated from a local lake. Near Messolongi there were extensive lagoons and a big salt works.

7/7/1980 Left Levkas by taxi and went on to S.W. Greece. Searched every likely place on the way on to Vonitsa and on to Amfilohia, but found no Beta. Then searched Kleopatra beach and Paleros beach. These were stoney beaches with a clay background and therefore quite suitable for Beta. We did find several small and very green specimens of *B. maritima* which were not likely to ripen. There was a big flock of sheep wandering along the beaches and obviously they had grazed these plants. A little further on in the direction of Mitikas we saw a group of about 200 goats. In an arid and barren area, such as this was, anything green had little chance of escaping.

We went on to Mitikas and drove down a long stoney road on the edge of the beach. Searched all along this beach for about 3 km and found several *B. maritima* in the base of a wire fence. These plants were green and very backward probably from earlier grazing. We also searched beaches at Payambula, Trifou and Loutrakion without finding any Beta.

Near Amfilohia we found one very immature *B. maritima*. Then went by bus and ferry to Patras.

8/7/1980 Went by bus and ferry to Andirion and searched the beaches on both sides of the village. Found 2 plants of *B. maritima* with ripe seed which became sample 13. These were growing under spiny vegetation which probably protected them from grazing animals. We also found some unripe Beta plants about 1 km from the site of sample 13.

Went by bus to Messalongi and then by taxi to Krioneri beach. The beach here was pebbly with a clay background. At 2 km west of Krioneri found a group of *B. maritima* with ripe seeds. This was sample 14.

Coastal erosion was serious here. Even the narrow gauge railway had been washed away.

9/7/1980 Went by Flying Dolphin to Messalongi and then by taxi to Astakos and Karasakis beaches. Along the beach near Astakos found several *B. maritima* which had been grazed. Then at 1 km from Astakos found 1 *B. maritima* with ripe seeds to make sample 15. This plant was growing in a cleft between the rocks in a sea embankment and so escaped the goats.

Beyond Astakos on the edge of the beach found two immature *B. maritima* which might ripen before the end of July.

11/7/1980 Went by bus from Patras to Killini and then by ferry to Zakynthos. Went out by taxi to the Lake of Keri beach and collected seeds from *B. maritima* plants located on the previous visit. These were samples 16, 17 and 18. Then went on to Kalamaki beach and collected seed of *B. maritima* - sample 19.

12/7/1980 Went by taxi and collected sample 20 at Argassi beach. This was land race type. Then the taxi driver introduced us to a very interesting gardener who had a big plot of garden beet or as he called it - Sesklia. It was a good crop with white roots 2 cm in diameter and 20 cm long. Its leaves were green and 40 cm high. The leaves were used as salad. This man was John Kalogiros, Kipi, Zakynthos. He was 69 years of age and he and his father before him had kept this particular strain of garden beet going for the past 63 years. He gave us a good sample of seed from his 1979 harvest. This became sample 21. Went to Amboula beach and collected sample 22 which was also land race growing in a clay bank.

Then went to Roggia beach near Kipselli and collected samples 23 and 24. These were both land race growing on a clay bank about 1 km apart.

Then returned on the ferry and bus to Patras.

15/7/1980 Went by ferry from Patras to Sami, Cephalonia.

Collected 2 samples of *B. maritima* near Sami. These were samples 25 and 26.

Then went by ferry from Sami to Ithaca island.

Went by taxi to Polis beach 3 km from the village of Stavros and collected two samples Nos. 27 and 28.

16/7/1980 Went by ferry from Ithaca to Sami and then by bus to Argostolion. Took a taxi and collected six samples:-

Sample 29 - land race garden beet given to us by a market gardener named George Svorovivos, Svoronata, Argostolion. He had been raising this strain for many years. The seed was from the 1979 harvest.

Sample 30 - land race garden beet seed was given to us by an old lady at Katelios beach. She had been raising this strain for many years and the seed was from the 1980 harvest.

Sample 31 - *B. maritima* from Poros beach

Sample 32 - *B. maritima* from Katavothres beach

Sample 33 - *B. maritima* from Katavothres beach

Sample 34 - *B. maritima* from Katavothres beach

The latter three samples collected in the vicinity of the restaurant which had a water mill wheel were isolated from one another by 200 to 300 metres.

17/7/1980 Went by ferry from Argostolion to Lixourion and collected five samples of *B. maritima*. These were samples 35, 36, 37, 38 and 39. They occurred all the way from Lixourion town to beyond Lappeda beach and they had all been located on our previous visit.

Returned by ferry to Argostolion and went by taxi to Fiskardhon and collected two samples of *B. maritima* - Nos. 40 and 41. Came back to Drapano beach 2 km from Argostolion and collected three samples of *B. maritima* - Nos. 42, 43 and 44. These were isolated by 250 m to 400 m from one another.

18/7/1980 Went by bus from Argostolion to Sami. Collected seven samples of *B. maritima* from Sami up to beyond Karavomilos - where there is another restaurant with a water mill wheel. The samples were Nos. 45, 46, 47, 48, 49, 50 and 51. They were isolated by at least 200 m from one another. They had all been located on our previous visit. Returned by ferry to Patras.

19/7/1980 Went by bus to Tsoukaleika beach, Peloponneses. Collected seven samples Nos. 52, 53, 54, 55, 56, 57 and 58. Of these No. 57 might be hybrid. All the others were *B. maritima*. They had an isolation of at least 200 m apart and they were all located on our previous visit.

Returned to Patras.

21/7/1980 Went by bus to Psathopyrgos and collected two samples of *B. maritima*. These were Nos. 59 and 60.

Then went by bus to Kaminia beach, Peloponneses and collected five samples Nos. 61, 62, 63, 64 and 65. Of these No. 64 was land race while all the others were *B. maritima*. They had an isolation of at least 200 m apart and they were all located on our previous visit.

23/7/1980 Went by bus from Patras to Rionn and by ferry from Rionn to Andirriion and then by bus to Levkas island. Collected one sample of *B. maritima* - No. 66 at Kumeros beach.

Then went by boat to Meganisi island. Searched all the small beaches near Vathi and Spartogori but found no Beta.

Meganisi was a small irregularly shaped island. It was about 3.5 km from N to S and 6.5 km from E to W. It also had a long very narrow peninsula about 8.0 km long. It was all hilly or mountainous and very rocky. It produced plenty of olives, some grapes and a little vegetables. At some places there were good conifer and broad leafed trees.

24/7/1980 Returned from Meganisi to Levkas by boat. Collected a sample of *B. maritima* near Levkas town. This was sample No. 67.

Then went by taxi to Mitika beach in S.W. Greece and collected sample 68 - *B. maritima*.

On our previous visit we had found many unripe *B. maritima* along this beach, but now we found that apart from sample 68 they had all

been grazed down.

Returned to Levkas and went to Nikitas beach. Collected two samples of land race beet Nos. 69 and 70. Groups of these were growing in 2 small neglected fields.

Then went to Lygia beach and collected two samples Nos. 71 and 72. No. 71 was *B. maritima*. No. 72 was possibly a hybrid.

In the region called Gira around the Levkas Lagoon collected three samples Nos. 73, 74 and 75. These were all isolated at least 200 m apart. They were all possibly hybrids between *B. maritima* and garden beet.

Also collected some more seed from the plant that gave sample 10 on 6/7/1980. This was used to supplement sample 10.

25/7/1980 Went by bus from Levkas to Agrinnion and then by another bus to Astakos. Collected a sample of land race garden beet seed from a gardener named Mr. Sakkatos Auastasios, Etoloakarnanias, Astakos. This man was about 80 years of age and he had been growing this strain for many years. The plants had white roots and the seed stems were big and branching. They were about 90 cm high. They had plenty of seed and he took off some while we were there and gave it to us. This was sample 76.

Went 1 km south of Astakos and collected a sample of *B. maritima*. This was sample 77. The plant was still flowering and had only a few ripe seeds - perhaps due to earlier grazing.

At 1 km further on got some ripe seeds from a group of *B. maritima* plants. This was sample 78. The plants were quite green and still flowering. So they had very few ripe seeds.

Went by taxi from Astakos to Messalongi.

Near Messalongi got a few seeds from a rather small land race plant which had obviously been grazed. This was sample 79.

Then returned from Messalongi to Patras on the Flying Dolphin.

26/7/1980 Went by bus to Rionn and then by ferry to Andirriion. Collected seeds from a Beta group which might have been hybrid. This was sample 80. Then collected five samples of *B. maritima* in the Andirriion area. They were samples 81, 82, 83, 84 and 85. These were all isolated from one another by 250 to 500 m and had

all been located on our previous visit.

28/7/1980 Went by bus to Psathopyrgos and collected some further seed from the B. maritima group No. 59 to replenish the sample No 59 taken on 21/7/1980.

Also collected seeds from another Beta group which might be hybrid. This was sample 86 and was the final sample.

Checked and packed all the 86 samples for travelling.

29/7/1980 Travelled by bus from Patras to Athens.

30/7/1980 Visited UNDP Office in Athens. Verified flight schedules already booked.

31/7/1980 Travelled by air from Athens to Rome.

1/8/1980 Went to FAO offices in Rome. Delivered the 86 Beta seed samples together with the individual field reports on all these samples and gave a verbal account of our experiences on the mission.

3/8/1980 Returned to Ireland by air from Rome to Dublin via London.

Table showing the number of samples found in each island and region.

	<u>B. maritima</u>	<u>Land Race</u>
Zakinthos	7	5
Cephalonia	24	1
Levkas	10	3
Ithaca	2	0
Meganisi	0	0
S.W. Greece	12	2
Peloponneses	<u>18</u>	<u>2</u>
<u>Totals:</u>	73	13

Total Samples = 86

General Notes on the Collection

Land Race Beet: The land race specimens we got were all garden beet. Generally in the vegetative stage these had white roots and green leaves which were used as salad. The Ministry officials at Patras assured us that in the territory we were dealing with there was no sugar beet, mangels or fodder beet. Therefore any

hybridizing that occurred was between *B. maritima* and garden beet.

Late Maturity: To show how late the plants were in ripening we got only 13 samples of *B. maritima* and 2 samples of Land Race on the first tour of the entire territory from 18/6/1980 to 9/7/1980. But during this time we had located and recorded the positions of the other 71 samples which we collected later. When we had finished collecting at the end of July there were quite a number of *B. maritima* plants still flowering. They would not give ripe seed until September and if they were grazed again they would give none.

Biennial or perennial plants: The majority of the *B. maritima* plants found this year appeared to be biennial or even perennial. They were such well established plants that it was not likely that they could have developed to that stage in poor arid soils in one year. In spite of their growth habit it was likely that they would give seeds in their first year. They were still in good growing condition after giving seed. This was in direct contrast with the *B. maritima* plants in the Eastern Aegean Islands where practically all the plants appeared to be annual and were already dead as soon as the seeds were ripe.

Proximity to the sea: All the *B. maritima* plants found were very close to the sea. In a few cases they were found 15 m to 20 m from the sea, but this was very unusual. Generally they were only 3 m to 5 m from the edge of the sea. In altitude they were at a very low level. Occasionally they were found at 10 m above the sea, but as a rule they were only 2 m or 3 m above sea level. Therefore in stormy weather they would be saturated with sea spray, which obviously suited them.

Sample numbering: The accession docketts placed inside the bags were numbered 001 1980 on to 086 1980 to distinguish them from the samples collected in 1979. On the outside of the bags, on the cards for photographs and in this report the samples have been referred to simply as Nos. 1, 2 3 on to 86.

Spelling of place names: Place names in Greece can have three or four different spellings probably due to the translating of Greek names into English. In this report the names of the Islands have been spelled in accordance with FAO spelling.

Maps: We got maps of all the islands and mainland areas concerned. Usually these were available only locally. They were very good and clear.

Transport: We would like to pay tribute to the Greek transport services in the area. Their buses and ferries were superb. They were punctual, reliable, comfortable and fast and their fares were very reasonable. The main roads also were excellent.

Tourist Police: There was a service of tourist police in nearly every town. We found them, both men and women, to be very friendly and knowledgeable and to be extremely helpful in giving information and advice on transport matters.

Taxis: We found it convenient to use taxis in many places. We were usually able to get English speaking drivers and invariably they were intelligent, had a good knowledge of the area and were most helpful. Furthermore, they did not object to travelling on rough bye roads when necessary.

The People: We found the Greek people everywhere to be very honest, generous, friendly and most helpful. They were happy and appeared to be fairly prosperous. Out in the countryside on the poorer land we saw many thousands of abandoned terraces indicating that the people had moved on to a higher standard of living.

B. Crombie.