



Phase2 1st-10th August.

Young Explorers: Fire 5 – Kayaking by Martin Rudd, Katie Burton, Vitaliy Derevesnikov, Sarah Gilbert, Philip Greenfield, Natalia Kuchina, Daniel Cousins, Kirsten Luke, Rachel Nedwell, Alia Petrova, James Sheldon, Fay Weston.

On Friday 31st July we collected our kayaks and went out into the bay to practise our self rescue techniques. With everybody happy with their drills we returned to base camp to pack our boats in preparation for the following day's departure.

August 1st and at last we were afloat! Moving slowly around base camp island to get the feel of our heavily laden boats we edged out into the open sea, heading towards the island on which we had spent Phase One. After stopping to stretch and replenish our water supplies we turned west, aiming to paddle through a small channel around the southern tip of the island. Unfortunately the 'channel' turned out to be a large, rocky and very muddy bank. Not only was it mud, however, it was a thick, black and very deep mud impregnated with the delicate smell of rotting seaweed! Wading Goosander by R Nott through it, carrying a fully laded sea kayak weighing over 100 lbs, was not my definition of good fun. That night we camped on two islands no more than 100m across, joined by an exposed reef.

We spent the next two days moving down the south coast towards Kovda in generally good weather broken only by occasional squalls.

The morning of 4th August dawned wet. It had been raining hard since the previous afternoon and most of our equipment was wet. Relieved to be afloat, we made our way into Kovda harbour, stopping at a village just outside it to buy bread and cheese. We were invited in to tea by the extremely kind area game warden's wife and the warden kindly agreed to let us use an island outside the harbour so we could attempt the open crossing to the north shore of the bay.

We spent the rest of that day in Kovda itself, washing and visiting the church, the most northerly wooden church left in Russia. We were made very welcome by a group of young biology students from Moscow, who return to Kovda each year to continue their studies and who are slowly restoring the church after the years of Communist neglect.

After a leisurely start to the next day we paddled out of the harbour to the island from which we planned to cross the bay. The next morning we were up at 4.30 in time to watch the sun rise in a clear sky over a calm sea.

Conditions were perfect. By 6.15am we were afloat and the 15km crossing went smoothly, taking almost 4 hours. We landed on a tiny island 100m off the coast and relaxed in the sun while we waited for the tide to turn.

As we paddled onwards that afternoon in perfectly calm conditions Vladimir suddenly noticed a Beluga whale about 500m away. Cautiously we paddled towards it and within 10 minutes found ourselves surrounded by 6 of these wonderful creatures, one or two less than 50m away. For almost an hour we sat amazed as the whales sounded all around us, being able to hear them breathing and see their arching backs clearly as they surfaced.

Belugas are seldom seen in Kandalaksha Bay at all, so to have seen 6 together was something special.

The rest of the kayaking phase went smoothly, although we were slowed down by headwinds during the following two days. We crossed back to the south shore on 9th and were back at base camp on Monday August 10th, having covered approximately 145km.

Young Explorers: Fire 2 – Diving by Camilla Cook, Adam Holmes-Davies, Andrew Hunt, Valery Iskenderov, Alexander Lepeyka, Andrew Newam, Debbie Hawkins, Eva Price, Simon Robertson, Paul Troft, Andrey Ugrymov, Simon Vane, Francis Williams.

Phase 2 took on a new dimension for us. We swapped kayaks and paddles for wetsuits and aqualungs. We were to dive in the Arctic Sea.

The previous fire to attempt to dive had been hindered by various factors.

We were all inexperienced and had no preconceived ideas of what to expect.

This helped.

With the help of our Russian instructor (Adil) and our excellent Russian translator (Michael) we took to the water. Two and a half days

of snorkelling acquainted us with the rigours we would face. Next day, tanks filled, strapped to our backs and clad in an assemblage of wetsuits and Russian dry suits (!) we submerged ourselves properly.

The phase culminated with an advanced dive in the middle of the sound. It took over an hour motoring in the boat for us to find the remote pinnacle of rock just jutting above the surface at low tide. It was an exciting dive: the rock was not charted and we knew the depths below us were in excess of 35m.

Our time on Dive Island was refreshing and rehabilitating. Most of us had learnt some new skills and glimpsed a new world which I am sure many will explore further in the future.

The last few days

The expedition's final day in Kandalaksha ended with a wonderful celebration cum farewell party at the Belomore Hotel. We had invited all the local people who had directly or indirectly supported our expedition, including the mayor and his wife. If we needed evidence that our expedition had been successful and thoroughly enjoyable then our farewell party provided it.

We were all due to leave Kandalaksha on 23rd August but at the last moment one of the YEs, Simon, fell ill enough to warrant admission to the local hospital. Jenny and I elected to remain whilst Keith Maslen and the team boarded the train for Pretrozavorsk en route to St Petersburg.

Fortunately, Simon made a rapid recovery and we were able to meet up with the expedition in St Petersburg.

A couple of days in and around St Petersburg was worth the effort with the highlight for most being a visit to the ballet to see the Nutcracker Suite.

If further evidence that the six week expedition had cemented firm friendships were needed then the flight back and the parting of ways at Heathrow provided such. There was a general air of depression amongst us as it dawned on us all that the expedition was over.

Science Reports

The Kola Peninsula is rich in minerals and so there is considerable mining in the region. The main ores are apatite, from which phosphorus and fertilizers are made, bauxite and nephelite for aluminium and iron ore for steel. Copper and nickel have also been extracted from the region. As the mines are so far from the main industrial centres it is necessary to process the ores on site and then transport the refined materials south by ship or rail.

Refining demands vast amounts of energy and so there are several hydro electric and nuclear power stations in the region.

In view of this industrial activity, the theme for the science work was environmental monitoring and this was done in conjunction with the local White Sea Foundation. This organization has set itself the target of assessing the White Sea environment by 1993 and then monitoring any changes over the following five years. Through this, they hope to be able to quantify the impact of various stresses on the flora and fauna in the Kandalaksha area.

In consultation with Adil Iskenderov we decided to monitor acid rain because the waste gases from the processing plants are thought to be very acidic. The second main whitetailed eagle by R Nott area of the science programme was to study heavy metal pollution.

With so much mining in the region, heavy metals should leach out of the tailings and enter the rivers and lakes.

Besides these two main projects, work was also done on birds, the weather, flowers and marine ecology.

The expedition was in three phases and the idea was to use the kayaking fires in Phase 1 to collect samples from as large an area as possible. Once the samples had been analysed, phases 2 and 3 could be used to make further more detailed investigations.

A summary of the fires and projects are set out in the table below.

Fire Main Project

Other projects

1 Acid rain, Peter & Noel K-T-K birds, weather, flowers.

2 Heavy metals, Paul Troft K-D-K birds, marine transects and weather, Debbie Hawkins.

3 Heavy metals, Paul Booker K-K-T birds and weather, Iain Hutchinson

4 Acid rain, Keith Maslen T-K-K birds and weather, Vadim Goudia

5 Marine ecology, Martin Rudd D-K-D marine organisms Chris and Dorothy and weather Adil Iskenderov

K = Kayaking, T = Trekking, D = Diving

192 Subjective observations of the weather during the expedition by John Kerr.