by Christopher Clapham

There are plenty of waders on Morecambe Bay, Lancashire, England, from mid-July through to the beginning of June, but the spring passage is especially spectacular. The Oystercatchers <u>Haematopus ostralegus</u> and Redshanks <u>Tringa totanus</u> have mostly left by early April, and the big winter Dunlin <u>Calidris alpina</u> flocks have broken up, but the Knots <u>Calidris</u> <u>canutus</u> and Turnstones <u>Arenaria interpres</u> stay until the first week of May. From late April onwards big numbers of Ringed Plover <u>Charadrius hiaticula</u>, Sanderling <u>Calidris alba</u> and <u>schinzii</u> and a few <u>arctica</u> Dunlin come to join the <u>alpina</u> Dunlin which have stayed on from the winter. Each year the Morecambe Bay Wader Group makes a special effort to ring, weigh and measure as many birds as possible in late April and May, but never with such success as in 1978, when our spring total came to nearly 5,000.

We started with a catch of 500 Dunlin, 165 Turnstone and 65 Purple Sandpipers <u>Calidris</u> <u>maritima</u> on Walney Island on 8 April. The Purples comprised virtually the entire Walney wintering flock, about whose origins we as yet know nothing. The Turnstones included 60 useful retraps from a catch at the same site early in the winter, and provided a valuable set of weights from the bottom of the late winter "trough", just before they start to put on fat for migration: one bird had been ringed at the Mersey a fortnight earlier, evidence of spring movement up the coast. Four Dunlins carried Norwegian rings, three of them from Autumn 1977. Another three were from autumn 1977 catches on the Tees and the Wash, and another had been ringed in Belfast in January 1978. Exactly 100 Dunlins were retrapped a month later, when all but one were identified by plumage as the <u>alpina</u> subspecies.

We had only two small catches in the rest of April. An attempt to sample the big spring Heysham Turnstone flock being foiled by a change in roosting patterns, so on May 1st we set a half-sized net for a small Turnstone flock by the bandstand on Morecambe Promenade. The Turnstone never got a chance. Something over 20,000 red Knot came off the sands, and settled in a long line all the way along shore. We caught 651 in our thirty-foot (9m) net, with 50 Dunlin for good measure. Our team was too small to process them all, but we got a good sample of near departure weights (they left for Iceland by May 6th), and four Icelandic controls from the Cambridge/London Expeditions 1970-72, as well as 3 from the Wash and 12 from elsewhere on the Irish Sea coast. The next morning we set just down the promenade at Hest Bank, but several of our team did not turn up, doubtless feeling that they had earned the right to a lie-in, and with over a thousand Dunlin and Ringed Plover in front of the net, we did not have a big enough team to fire; unfortunately, the birds all left together.

On May 7th we were round at Walney Island again, since there was still a good flock of Dunlin, and we thought some controls from the month before might be useful. They settled themselves in front of our two nets, and we reckoned we had a big enough team to fire one of them, which we did, catching 1719 - 28 Ringed Plovers, 21 Turnstones, a Sanderling and the rest Dunlins. By contrast with a month before, about two-thirds of the Dunlins were <u>schinzii</u>, with a few <u>arctica</u> and the rest <u>alpina</u>. The different patterns showed up very clearly in the controls: the <u>schinzii</u> were all from May catches on the west coast and from July-August on both east and west coasts, and also included one from Mauritania; all the four Scandinavian birds, and all of those ringed in winter in the U.K., were <u>alpina</u>; the two <u>arctica</u> controls had been ringed in May on the Dee. Turnstone retraps of birds caught a month before provided useful weight gain data.

We tried again at the Hest Bank spits on May 19th, this time with a decent team, and caught 152 Dunlin and 113 Ringed Plover. The next day we went to our favourite May Ringed Plover site at Conishead Priory near Ulverston, and caught precisely 500 of them, which was a Morecambe - and therefore, we assume, a world - record catch for the species, along with a couple of hundred Dunlin. The control rate for Greenland Ringed Plovers is extremely small, there only being one in more than 600 caught during the two days. It had been ringed on the Solway in May 1973, but some more weights were collected, along with data on changes in the subspecies composition of the Dunlin flocks.

For our farewell show, on May 26th, we had a visit from the Wash Group flying safari squad - to our great mutual benefit - and took them off to our well-tried site on Walney. Rather to our visitors' surprise, the birds were not scared off by the massive boulders which we erected on the beach as markers, and we eventually caught 585 - 205 Ringed Plovers, 172 Dunlins, 112 Turnstones, 93 Sanderlings, 2 Grey Plovers <u>Pluvialis squatarola</u> and a Bar-tailed Godwit <u>Limosa lapponica</u>. The Wash Group were most interested in the Ringed Plovers, the <u>schinzli</u> and <u>arctica</u> Dunlins, and in controlling one of their own Sanderlings from the previous July, but the real oddity among the Sanderling was an East German bird, ringed on the Baltic in October 1976 and first controlled a month later on Walney: we had previously assumed that all of our May Sanderling were bound for Greenland. Most valuable of all were the Turnstones, which included not only an excellent sample of adults at weights high enough to permit a non-stop flight to northern Greenland, but also 11 first-summer birds which were equally fat, in sharp contrast to the majority of the first-summer Turnstones, which had scarcely added to their winter weights. There was nothing exceptional about the birds on the Bay this spring; the only unusual thing was that, for once, almost everything went right, and time after time we caught them. We may never do so well again, least of all next spring when the WSG is mounting its collaborative project (see elsewhere in this Bulletin). However we keep on trying, at least fortnightly throughout the year from late July to the end of May, and as a group suffers far more from a shortage of people than from a shortage of birds, we are always keen to welcome new members. If anyone is interested in joining us, please get in touch with the group secretary at the address below, and I will be delighted to send details.

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## LEG PARALYSIS IN CAPTURED WADERS

## by G.H. Green

A recent note by J. van Heerden (his address 108 Pretorius Street, Hatfield, Pretoria 0083, South Africa), 'Leg paralysis in birds' <u>Ostrich</u>, 48:118-119, 1977, is of interest to wader ringers. He describes leg paralysis following excessive chasing, over exertion, unnecessary disturbance, excessive handling, fear and shock which may lead to death and he calls the whole syndrome 'stress myopathy' or 'over straining disease'. Wader ringers may well have experienced problems with long legged waders 'going off their legs' after capture and the species most seriously affected in UK is the Curlew <u>Numenius arquata</u> but similar problems occasionally arise with Bar-tailed Godwits <u>Limosa lapponica</u>, Whimbrels <u>Numenius phaeopus</u> and even Redshanks <u>Tringa totanus</u>. Curlews may be affected very quickly so that netted birds may be unable to stand very soon after capture and some may die although there are no obvious injuries. In view of van Heerden's paper they may well be suffering from stress myopathy caused by the birds straining their leg muscles by pushing against the net in which they are captured: a leg motion entirely different from their usual movements. This once again lends emphasis to the view that captured Curlews must be dealt with quickly and released again as soon as possible after capture. Whenever possible they should be taken from mist nets immediately they are caught.

Van Heerden also mentions leg paralysis and death in long legged Flamingos <u>Phoenicopterus</u> <u>ruber</u>, <u>P.roseus</u> and <u>P.minor</u> which had been chased, were exhausted on capture and then transported with their legs in a folded position. Histological lesions were found in the leg muscles which suggested that their blood supply had been impaired when the legs were 'folded' thus leading to muscle death and leg paralysis. It seems likely that waders which are unable to stand after being confined in a low roofed keeping cage may be suffering from a similar condition. It is always noticeable that small waders run about in keeping cages which are 30-35 cm high whereas taller species are quiescent and crouch on folded legs. They may be unable to walk after quite short periods in this position although not all individuals are affected. To alleviate this problem Bainbridge, (WSG Bulletin No 16, November 1975), described a tall hessian cage about 90 cm high which reduced the incidence of leg cramp in captured curlews. It can be concluded that if capture of Curlews is expected his advice should be followed; if capture is unexpected the birds should be released again as rapidly as possible and this may require special efforts on the part of the ringer.

Birds with leg paralysis may recover. In the short term wader ringers could try suspending the bird in a sling so that the feet are on the ground in a normal position - the suspended bird being kept in a tall, darkened and undisturbed place. It is better to try this than do nothing. In the long term specialist treatment may be required - vitamin injections, forced feeding, quiet and solitude for perhaps ten days and minimal handling. This requires the co-operation of people used to keeping birds in captivity and probably a vet. This may be beyond the resources of most ringers who must therefore aim at prevention by rapid working and the use of tall cages.

Finally a personal observation - captured waders occasionally suffer from wing strain, or wing droop and cannot fly when they are released. Providing they have no obvious injuries such birds should be left in peace on undisturbed coast where they can feed. They will probably recover. Unce released they should not be chased or harassed in any way.

If anyone has any further observations on these matters we should be pleased to hear from them.

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