A Common Sandpiper normally weighs around 50 to 55 gm but due to the large egg size (around 12 gm) a laying female is very heavy; our maximum being 90 gm. We have not found brood patches. Both sexes incubate and tend the young. The maximum-chord winglengths of males tend to be shorter (mean 111 mm) than those of females (116 mm), but this is not distinct enough to allow sexing.

From mid-May until the hatch around 5-10 June the stream is very quiet; most females are tight sitters and the males cease most territorial activity. This contrasts markedly with mid-June when there are continued alarm calls from one pair after another. Most pairs hatch 4 young and these are tended, usually in coarse vegetation where they live until they can run quickly enough to feed in open stoney habitat and run to hide-outs when threatened. At hatching they weigh around 8g and grow fairly steadily until at 19 days, when their weight approaches 40g, wing 90 mm and bill 20 mm, and they are able to fly. However, it takes them a few more days before they tend to fly when alarmed, rather then to run and hide.

During the first ten days of July most birds leave the streams. Just a few pairs raising broods from replacement clutches remain. They all leave at low weight, some adults caught in July are lighter than their own young. Around 75% of adults return each year.

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## ONE NIGHT AT MUNSTER - THROUGH BRITISH EYES

by J.M. McMeeking

Bulletin 28: 17-21 included a comprehensive history of the Münster Sewage Farms in West Germany, and an account of the work being done by the Ringing Group there. Hermann Hotker and his colleagues issued a very warm invitation to British ringers at the Nottingham WSG meeting in 1979. So a visit was engineered in mid-August 1980 by adding a day to my family's journey from a holiday in Austria.

OAG Munster formerly ran its Biological Station in a collection of rather dilapidated huts which might be regarded as typical of many field stations. Now things are vastly improved: OAG seized the opportunity of a short-term government programme to obtain funds for a magnificent new building, purpose-built for their work. This is now operational, though not yet quite complete, and is a base of which any institute could be proud. Most British wader ringers would regard the living accommodation as positively luxurious, and it is supported by a vast ringing laboratory, a chemical laboratory, a dark room, a large office with full modern equipment, and a computer room complete with computer! There is also a massive garage for the bulldozer, 'JCB', and other equipment used by OAG for habitat management: already there are murmurs that less lavish accommodation might be adequate for the machinery, making room for still more workers and facilities within the main buildings.

A quick tour of the reserve used the vantage points of a large hide, and of viewing gaps in the vegetation surrounding the individual pools: highlights were a Temminck's Stint <u>Calidris temminckii</u> and one of the breeding Marsh Harriers <u>Circus aeruginosus</u>. The potential of this great expanse of artificial wetland was obvious, as was the threat from excessive growth of Reed-mace <u>Typha latifolia</u> which OAG works so hard to control. They must be congratulated that the wetland still exists: I learned many of my birds on the fabulous old Nottingham Sewage Farm - perhaps that could have survived too, as an inland wader station, if we had shown equal determination and worked as hard!

And so to the night's ringing: the procedure was clearly described by OAG Munster in Bulletin 28: it is the differences in equipment and technique which will interest British ringers most. First, the wader-nets which are 40 metres long - more than three times our normal length: these are mounted on galvanised steel poles of over 1" (25mms) diameter, guyed with steel wires fixed to angle-iron pegs. The wire is double-looped round the pole back to a steel hook, and holds remarkably well. The tensioning of such long nets requires considerable effort. Recent deliveries of Japanese wader nets apparently retain their length without undue stretching. The tension achieved is adequate for this inland site, but would surely not suffice in tidal conditions, and use of only one guy to each pole seemed strange. The nets are always erected singly, and are left on their pairs of poles when taken down.

Currently the standard set comprise two lots of three single nets, in areas identified as present favourite roosting beds: but fog the previous night and threatening rain meant only four nets in all and guessing which pools to cover. Intermittent rain did develop, so we could only take the dusk catch; overnight flushing and the dawn movement had to be missed. Our catch of 28, spread over 10 species, was well up to standard (anything over 60 for a full night is a good score), and processing provided several points of interest - including a juvenile Little Ringed Plover Charadrius dubius from a nest on the gravel roof of the new building.

The long series of measurements, and detailed examination for moult are conducted by teams of one worker and one scribe, and were no doubt greatly slowed by the intrusion of one English ringer and three Glaswegian trainees into the teams. Ringing above the "knee" on some species; adding up to five colour rings (they are running out of combinations for some species); learning how to measure Flugelspitze and Nalopsi (WSG Bulletin 28: 21); and 'scribing' in German were quite entertaining. On equipment, light-proof cupboards for holding birds in bags or sacks before and after ringing seemed to work well - though ventilation would surely be a problem if numbers were much bigger. Square tubs on castors (some 20" [50cms] high) seemed effective for holding sacks while being emptied, and help avoid any danger of sacks 'jumping' round the room or being accidentally crushed. The superb light makes the real difference here - this improvement on 'field' conditions at night is striking, and makes the elaborate processing possible. On weights, the standard Pesola gives way to a splendid electronic balance 'zeroed' with an ordinary postal envelope (Bird Study size) which held each bird in turn quite satisfactorily - right up to the size of Lapwing Vanellus vanellus! Despite this easy-to-use method, the morning check showed that two weights must have been wrongly read or recorded - we are all human in the wee small hours: it also revealed weight losses over 8/10 hours averaging close to 10%, which seemed high to me.

And a final note on rings: in Britain we may curse the monel B2 and C2 as we try to butt them neatly, but now I understand why the steel rings used by some continental schemes appear to be so badly applied: if ours are difficult to fit, theirs are impossible - so let us be grateful to Bob Spencer and to Lambourne's for what they have given us to use.

Seventeen hours at Münster were well worthwhile: I was most grateful to Hermann and his colleagues who will welcome other visitors, but preferably for long enough to be more help.

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