comes with them. Egg collecting is still common on the islands. Increasing numbers of people using the islands for recreation causes more and more disturbance to the breeding birds. Indications were also found that the islands are used as targets in military manoeuvres. Predators, alien to the islands, have been introduced and breeding birds. Indications were also found that the islands. Increasing numbers of people using the islands in a period of two months. Helicopters were recorded regularly flying low over the islands and even can flood the entire island and destroy the eggs in whole colonies. The uncontrolled increase of industrial fishing cargo ships and oil tankers, close to the islands, form a disturbance and destruction. Increasing traffic of giant predators, like Harqus, as high waves caused by their movement that one single cat on Jana killed more than 300 adult terns in a period of two months. Helicopters were recorded regularly flying low over the islands and even landing in the middle of tern colonies, causing major disturbance and destruction. Increasing traffic of giant cargo ships and oil tankers, close to the islands, form a real threat to breeding colonies on the low lying islands like Harqus, as high waves caused by their movement can flood the entire island and destroy the eggs in whole colonies. The uncontrolled increase of industrial fishing could severely reduce the food availability of terns. Landfilling occurs on a large scale along the Gulf coast, destroying the breeding grounds of the fish terns feed on.

All these threats make immediate action needed for the long term conservation of these tern populations of international importance. To counter impacts of direct human disturbance, caused by fishermen, recreational disturbance and helicopters, well oriented educational programmes must be initiated, as this disturbance is mostly the result of ignorance. To safeguard the breeding and feeding areas of the terns, a chain of protected areas should be immediately established in the Gulf, including the islands, as well as important coastal areas like mangroves, mudflats, algae flats, seagrass beds and coral reefs. This can be done by implementing the protected areas plan of the NCWCD in the Gulf.

Further research and monitoring of the breeding colonies is needed to understand population trends, to define the conservation needs of all seabird populations occurring in the Gulf, and to develop adequate management plans for the protected areas. Further study is also needed to investigate the long term impact of oil pollution. In this respect, the breeding terns can be used as indicators of the condition of the entire marine ecosystem of the Gulf.

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THE GULF CONFLICT - A DIFFERENT PERSPECTIVE

The opportunity to warden the ringing station at Die Reit at the confluence of the River Elbe outside Hamburg was something I had looked forward to all year. Involvement in a major international conflict could not have been further from my mind when, late one evening in Autumn 1990, the telephone rang in my little hut in the phragmites and I was summoned back to barracks. So it was that deployment to the Gulf began and a month or so later I arrived at al Jubail in eastern Saudi Arabia, which we had difficulty locating on a world map.

The possibility of some interesting birding had not escaped me, and among the packed essentials I had managed to squeeze a few mist nets, rings and a telescope.

My observations at our initial location were poor and consisted mainly of white-cheeked bulbuls Pycnonotus leucogenys and the ubiquitous house sparrow Passer domesticus. I remember the excitement when a white wagtail Motacilla alba and some hirundines passed by going south. Nevertheless I kept my eyes peeled, and as one became more familiar with the surroundings and adequate maps were produced, the true importance of the area for avian species became apparent. A flock of 74 greater flamingos Phoenicopterus ruber overflying our campsite early one morning left me in no doubt as to the potential.

Military activity at this stage revolved around the port, and with the help of a tide chart kindly provided by the Egyptian harbour-master my off-duty hours took on a new perspective despite the limitations on movement. My species list began to increase rapidly.

The tidal flats at al Jubail supported a remarkable number of waders, and the pools surrounding the water treatment plants attracted a wide variety of duck, herons, grebes, gulls and up to 500 greater flamingos. Osprey Pandion haliaetus and Socotra cormorant Phalacrocorax nigrolagus were regularly recorded as were small groups of passerines flitting along the coastal defences as they came in off the sea or down the coastline.

Wheatears quickly became a nightmare, and despite hours of study I all but gave up on the females. Sand plovers, too, were difficult but did become easier when in groups. It transpired that we might remain in the area for weeks so I decided to try some ringing and searched for a suitable venue. A call to Peter Symens at the NCWCD in Riyadh cleared the use of my BTO rings, and with assistance from an Indian gardener I established net-rides in the tamarisk and phragmites adjacent to his nursery. This small site on the west side of the town was delightful and I returned to it several times over the following four months. The variety of birds recorded was amazing in little more than an acre of wetland, and had it not been for the prevailing strong winds the number of birds ringed would have been much greater. The horned vipers, which the gardeners presented repeatedly for my approval, were somewhat disconcerting!

In November the principal species were chiffchaff Phylloscopus collybita, tawny pipit Anthus campestris, stonechat Saxicola torquata and bluethroat Luscinia svecica. It became clear when retrapped months later that many of these birds over-wintered at this site. Among the other species seen or trapped were robin Erithacus rubecula, song thrush Turdus philomelos, lesser whitethroat Sylvia curruca, common snipe Gallinago gallinago, isabelline shrike Lanius isabellinus, red-throated pipit Anthus cervinus and white-breasted kingfisher Halcyon smyrnensis. The latter is a most vividly blue bird in flight, and the one I ringed remained at this site until at least March 1991.
In the water treatment pools to the north of al Jubail large concentrations of waders had gathered which included greater sand Charadrius leschenaultii, lesser sand C. mongolus, ringed C. hiaticula, Kentish C. alexandrinus, and grey plovers Pluvialis squatarola, terek Xenus cinereus and curlew sandpipers Calidris ferruginea, little stint C.minuta, dunlin Calpra, sandering Calba, curlew Numenius arquata, whimbrel N. phaeopus and bar-tailed godwit Limosa lapponica. The gull family was represented by slender-billed Larus genei, lesser black backed and the taimyrensis variety of the herring gull L. argentatus.

Towards the end of November great black-headed gulls Larus ichthyaetus were increasingly noted. Occasional visits to the local sewage treatment plant produced redshank Tringa totanus, greenshank T. nebularia and green sandpiper T. ochropus.

It was around this time that I encountered three separate examples of illegal attempts to trap birds. A brown-necked raven Corvus ruficollis was lured towards what appeared to be an owl-skin and its leg snared as it landed on the prey. A group of four men attacked coot Fulica atra in a pool by chasing them simultaneously from different points around the pool towards the centre where the birds were encircled and strangled. The last disturbing example was of permanently sited crude mist-nets in the water treatment pools which were left unattended. I never saw them visited and it seemed that they had been abandoned long ago; dead waders were hanging in them at all times and I had no access to a small boat which would have been necessary to remove them.

A short article like this is not intended as a summary of all species seen but other interesting records from this area included little crake Porzana parva, black-necked grebe Podiceps nigricollis, ruddy shelduck Tadorna ferruginea, black kite Milvus migrans, water rail Rallus aquaticus, white-tailed plover Chettusia leucura, little bitternIxobrychus minutus, avocet Recurvirostra avosetta, black-winged stilt Himantopus himantopus, black-crowned finch lark Eremopterix nigriceps, cattle egret Bubulcus ibis and squacco heron Ardeola ralloides.

After the move into the desert in November the number of birds seen declined and there were days when I saw no birds at all, especially during the rainy periods. Coming to terms with the larks was something else and many remained nameless until I had observed them over many days and learned to identify them correctly. Some I was familiar with from earlier visits to Cyprus, but others were very different and daily sightings progressively confirmed their own distinctive traits. At no time did I see any owls or sandgrouse. Cream-coloured coursers Cursorius cursor became quite common as we moved north-west, as did Temminck's horned lark Eremophila bilaopha. In the Dibdibah area north of Hafar al Batin the hoopoe lark Alauda alauda, which had been the principal lark species west of al Jubail, was replaced by the desert and bimaculated larks. The occasional samamiscus redstart Phoenicurus phoenicurus and black headed wagtail Motacilla flava feldegg sought refuge in our leaguer areas during bad weather. Dunn's, Eremalauda dunni bar-tailed desert Ammomanes cinctura and lesser short-toed larks Calandrella rufescens found an unusually rich food source around our feeding areas as we entered southern Iraq in mid-February and moved eastwards towards Kuwait.

The ornithological highlight of the scramble through Iraq was a single black-headed gull Larus ridibundus which landed on a stationary vehicle during a heavy storm and the sudden, colourful appearance of many woodchat shrikes Lanius senator. Until this time very few raptors had been seen, but towards the middle of February the occasional steppe eagle Aquila nipalensis showed an interest in our activities and would spend up to an hour soaring above our vehicles. Migrating buzzards Buteo sp. were recorded in small groups as we entered Kuwait, and kestrels Falco tinnunculus made half-hearted attacks on the early swallows Hirundo rustica, which by this time were on their way north again.

After the conflict I spent ten days in Kuwait. The only bird I ringed there was a chiffchaff which took refuge in the cab of a vehicle! It was early March and the raptor movement was increasing in the form of a very pale short-toed eagle Circaetus gallicus, more buzzards and single marsh harriers Circus aeruginosus.

By mid-March we received orders to return to Germany and I made the return journey by road from Kuwait to al Jubail. Migration was obvious everywhere with good numbers of shrikes all along the coast road and flocks of larks, phylloscopus warblers and hirundines coming off the desert. Passing through the burning oilfields I saw many blackened gulls, but these seemed to be victims of the polluted air rather than the sea. They scavenged in the conflict debris and were flying between the clouds emanating from the burning well-heads. Droplets of oil from these clouds badly fouled the vehicle windscreen and I am sure will have coated the birds as well. Along the coast a few doomed coromants and grebes were noted, but the worst affected birds I recorded were the waders. Although not entirely flightless many were badly soiled, and the pools at al Jubail told a similar story.

Two final visits to the nursery showed an influx of hoopoes Upupa epops and grey wagtails Motacilla cinerea plus a marsh sandpiper Tringa stagnatilis, Menetries Sylvia mystacea and great reed warblers Acrocephalus arundinaceus. There were significantly increased numbers of the species recorded previously at the site.

The circumstances of my five months in the Gulf are well known and require no explanation. I made use of my time and maintained a daily record of my observations where possible. All data were passed to the ABBA project on my return to Europe and will, I hope, make a useful contribution to the Atlas. My interest in ornithology was rewarded time and again, and I left the area more aware than ever of the vast number of species the Gulf area supports. A pragmatic conservation policy is paramount in order to secure and maintain for the future the unique characteristics of this internationally important yet essentially fragile, habitat.