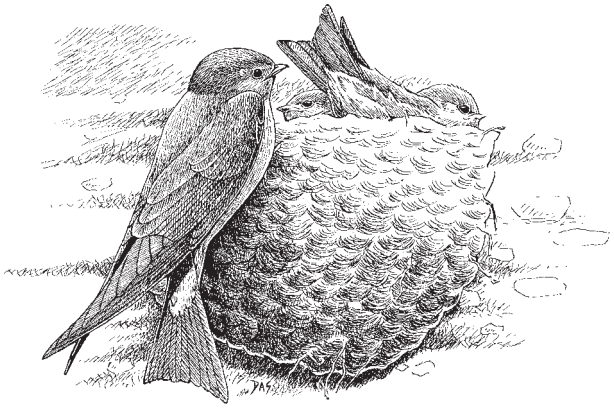
Pale Crag Martin *Ptyonoprogne obsoleta* خطاف الصخور الباهت



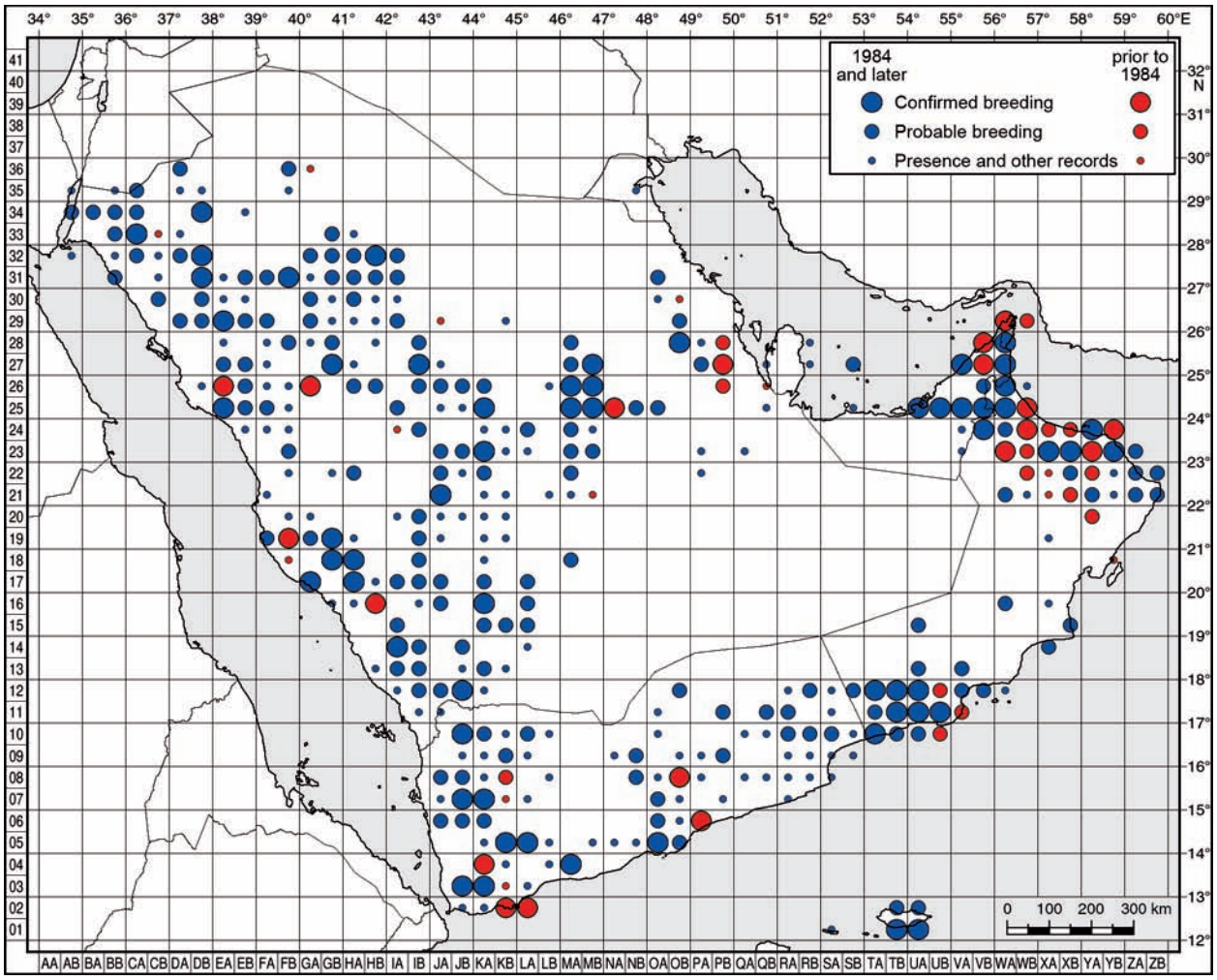
The range of this species extends from the Sahara and north-east Africa, to Iran. Seven subspecies are recognised, three of which occur in Arabia. The nominate subspecies is found in northern, central and eastern Arabia (also Egypt and Iran), *P. o. arabica* occurs in parts of the Sahara, the Horn of Africa, south-west Arabia and Socotra Island (it was named from a specimen collected at Lahij in Yemen, Reichenow 1900-1905) and the pale *P. o. perpallida* is endemic to the Hufuf region of the Eastern Province (Vaurie 1951). The Eurasian Crag Martin *P. rupestris* is a rare migrant through all parts of the Arabian Peninsula but has never been found to breed there, despite several suggestions that it may do so.

The Pale Crag Martin is a breeding resident throughout most of Arabia, except the extreme north and north-east and the Empty Quarter. Wandering, non-breeding individuals can occur in all regions. There are only a few non-breeding records from Kuwait, Bahrain and Qatar. It has occurred rarely on Das Island in the Arabian Gulf, indicating a possible small exchange of birds across the Gulf, and a pair was present there once for some weeks. A few winter on Masira Island, and there is a small breeding population on Socotra Island, with a single report from Abd al-Kuri Island. It is scarce or absent along much of the Red Sea coastline. The map shows all records.

The species is usually found in pairs or singles, it forms small flocks in winter, often of about 30 strong, but gatherings of 300-500 have been reported from central Arabia and Dhofar in that season. Winter flocks may roam away from breeding areas, for example a survey on the al-Madam Plain in the UAE found an average of 9.6 birds in each square kilometre in counts during "winter" (January to March) but in "spring" (March-May) the species was absent there (Wardman et al. 1997). It is rather scarce in southern Oman and eastern Yemen and many parts of central Arabia. Up to 10,000 pairs have been estimated in the UAE (Aspinall 1996 b). A survey of the Jabal al-Akhdar, Oman, estimated that there were about 400 pairs in the area above 1,800 m, an area of just over 500 km^2. In those places where it is common, which is probably about half its Arabian range, there are likely to be at least 500 pairs in each of the Atlas squares in which it occurs, but in other regions 100 pairs in each Atlas square might be more realistic. This would suggest a total Arabian population of about 150,000 pairs. Since the 1980s, the species has moved westwards in the UAE to breed on high-rise buildings in Abu Dhabi, and it may also soon colonise similar sites in Qatar. Historically the availability of suitable rocky nest sites has probably been a key factor in limiting its distribution but by the end of the 20th century it was likely to find many more opportunities to breed on man-made structures in central Arabia away from rocky areas. These changes, and the probability that more food is available in winter at agricultural sites, suggest the population may be increasing but there have been no studies to confirm this.

This martin was originally limited as a breeding bird to the vicinity of rocks, caves and cliffs where it found nesting sites. It occurs from sea level to at least 3,600 m in Yemen in this habitat and it is also known from the summit of Jabal Shams, Oman (3,000 m). It has no preference for any particular type of rock and is just as common in limestone and sandstone as granite and lava. It has probably always nested occasionally on human structures and nests have been reported from traditional houses, but some types of new buildings seem particularly attractive, for example concrete bridges and culverts and high rise buildings. The areas where it is absent tend to be devoid of rock outcrops. During the ABBA period it appears to have become more commensal with humans and is quite regular in some cities. It may actually be in the process of exchanging its original preference for natural nest sites to one for man-made structures, as for example the Northern House Martin *Delichon urbicum* has done in Europe in recorded history. It will be interesting to see if, in the future, it colonises towns in those areas where it is absent, by nesting exclusively on buildings. Although it is tolerant of arid conditions, it must have access to patches of wet soil during the breeding season to allow it to collect mud which is necessary for its nests, conditions that exist wherever there are human settlements. However, it is perhaps less common in more temperate parts of Arabia, for example in the south-west it avoids the forested areas of the western highlands and may not be able to tolerate areas of high humidity as it is scarce in the coastal zones of the Red Sea, parts of southern Arabia and the coastal zone of the Gulf. Outside the breeding season flocks regularly visit sites that are rich in flying insects, such as wetlands, sewage settlement beds, green crops and other cultivated areas.

Food is almost exclusively flying insects. Stomach contents of specimens from Arabia have included beetles, bees, wasps, ants, bugs, flies and lacewings and field observations of food taken have added mosquitoes, termites and



grasshoppers. It drinks on the wing. Migrant hirundines do not tend to frequent the arid and rocky places where it nests and as such are not thought to be food competitors. The Red-rumped Swallow *Cecropis daurica* may inhabit wetter areas.

This species places its nest under rock protrusions, on cliffs and in caves but increasingly on man-made sites as well. Usually the cup-shaped nests are attached to vertical surfaces on one side. Concrete seems to give as good adhesion as rock, but nests can also be attached to metal walls or be partly supported by rafters and ledges. There are records of nesting on the inside of occupied human dwellings. Once, a nest was found (adults feeding young) on the inside of a busy doorless kitchen serving a roadside restaurant. The adults bringing food for young dodged the waiters going to and from the restaurant. Nests have been reported over water, one only 1.5 m above high tide mark of a sea cliff on the Musandam Peninsula. The species will also use artificial nests; part of a coconut shell has proved successful in Abu Dhabi. The nest itself is constructed of gobbets of mud collected from damp soil or the edge of puddles. It is mainly lined with feathers but soft grasses, hair, sheep's wool and oleander plant down have also been noted. In northern Oman adults were adding mud to a nest on 7 January, but egg-laying was delayed for some reason, as birds did not incubate until late February, the young hatching about 4 March. Nests are often re-used in successive years, or twice during the same season, after appropriate refurbishment. Birds will replace a nest and lay a replacement clutch if a clutch or brood is lost, for example after destruction of the nest. Of three records of replacement clutches where the contents were known, all had smaller second clutches. Two nests are known to have been re-used in autumn after young fledged in spring but such re-use may have involved a different pair.

For such a widespread species, this martin has a remarkably regular breeding season, with no consistent regional or altitudinal exceptions noted, including the few records from Socotra Island. Generally the main breeding period, when eggs are in the nest, is February to April. Over 80% of all records of confirmed breeding were in this period. There are scattered records of eggs and young in January and from May until August. A majority of the records from May onwards are from the south-west and Musandam area. There is one