anisylacetone have been widely used in the control of these species. They are very attractive to male flies which feed on the lure, but it is uncertain why they possess this biological activity. The present study indicates that there may be a relationship between these lures and the pheromone. The males are also attracted to the pheromone which they feed on as they do with the male lure, while virgin females of *D. tryoni* respond to the most potent of the lures, 4-(*p*-acetoxyphenyl)2-butanone, at dusk in essentially the same way as they respond to the pheromone. Feron[2] found that siglure, *sec*-butyl-6-methyl-3-cyclohexene-1-carboxylate, evoked the same sexual behaviour patterns in *C. capitata* as the male pheromone produced by that species. He suggested that the males are attracted to the lure because it triggers off the neural mechanism, common to both sexes, which controls sexual behaviour.

Alternatively the pheromone may play a specific part in the sexual behaviour of males. There are very few observations of mating of *D. tryoni* in the field, but there is some evidence that males congregate together when stridulating. One of the factors controlling this may be the pheromone. If so, it is possible that the synthetic lures are structurally related to one of the components of the male pheromone.

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Observation of an Encounter between Birds and Floating Oil

Although oil pollution has been a growing hazard to water birds for half a century[1], little information is available about how it occurs. Curry-Lindahl[2] has remarked that in the Baltic flocks of long-tailed duck, *Clangula hyemalis*, "very often swoop down just on the patches of oil where the deep sea roll is less heavy; consequently these oil spots serve as veritable death traps", whereas Casement[3] has reported that where Manx shearwaters, *Puffinus puffinus*, were flying up the Bosphorus the passage of a patch of oil "caused birds to rise a few feet as flocks passed over it and then swoop down again to within a few feet of the sea". Otherwise widely repeated suggestions that birds positively seek out oil, because it makes the water calm, or resembles food, or tide-rips or shoaling fish associated with the presence of food, seem to be based chiefly on speculation. There has therefore been a need for critical observations of how birds actually do behave when they encounter oil.

On the fine, calm morning of May 18, 1968, I was watching breeding seabirds from the top of the 150 feet westward facing cliffs of St Bee's Head in north-west England when at about 08.00 h I saw a small coasting vessel leave a trail of oil on the water. The oil gradually drifted ashore before a light north-west wind as it dispersed. The first birds to swim into the oil while it still formed a dense band about 5–10 feet thick were a single and then three guillemots, *Uria aalge*. They took no notice of the oil until they touched it, whereupon they immediately dived, the first surfacing at an angle of about 45° to the left of its original course beyond the oil, and the others at an angle of about 135° to the left of their course on the near side. They then dived again, and I lost the first bird unless it was one seen preening well out to sea some time later. The others, however, continued in the same direction, surfaced well clear of the oil, and then settled down to clean themselves. At the same time first a herring gull, *Larus argentatus*, and then a kittiwake, *Rissa tridactyla*, which also swam into the oil, rose and flew away, while birds of all three species flying about above the oil took no notice of it whatsoever, except that one guillemot dipped low over it, perhaps by chance, without settling. Later, as the oil began to disperse, other gulls and guillemots swam around smaller patches, and then when it was reduced to a thin film swam straight through it, although most birds which came into contact with the oil still started to preen soon afterwards despite the fact that none seen at any stage became noticeably soiled.

It seems that these birds took little notice of oil on the water unless it was thick and they came into direct contact with it, when they took avoiding action. They tried to swim around small patches, and gulls, which are primarily aerial species, reacted to larger patches by flying, but guillemots, which are primarily aquatic, dived, in directions apparently selected at random. Although diving is likely to be a highly successful reaction to predators or small patches of oil, it probably has entirely disastrous results when the birds encounter larger areas of pollution, and will doubtless help to explain such phenomena as the death of large numbers of guillemots in the Torrey Canyon disaster at a time when the even more numerous local gulls escaped almost unharmed[4].

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On the Identity of the Fur Seals of Australia

Apart from stragglers from the Antarctic and subantarctic regions, the only pinnipeds normally found on the Australian coasts are hair seals or sealions (*Neophoca*) and fur seals (*Arctocephalus*). There is no doubt about the identity of the single species of sealion (*N. cinerea*), but there has been no settled opinion about the number of species of *Arctocephalus*.

The three Australasian species of *Arctocephalus* that have been described are *A. doriferus* Wood Jones 1925 (ref. 1), *A. tasmanicus* Scott and Lord 1926 (ref. 2) and *A. forsteri* (Lesson 1828) (ref. 3), the latter known as the New Zealand fur seal from its main concentration. Whether all three species should be recognized, or which if any is distinct, are questions which have been answered in different ways by different authors, but it has always been said that there could be no definite decision until more specimens had been collected and examined.

During 1967 I had the opportunity of studying the pinniped material in the museums in Adelaide, Melbourne, Perth and Sydney, and also of collecting specimens from