

## OTTER REFLECTORS ON THE ISLE OF MULL

Since 1983 reports of otter deaths on the Isle of Mull have been recorded. It has become evident that the major cause of reported mortality is road traffic collisions. A number of specific sites have been shown to be 'hot spots' where a number of otters have been killed, or frequently seen crossing the road. Wildlife warning reflectors can be used to distract animals in the hours of darkness or low light conditions. They work by reflecting the light from vehicle headlights at right angles to startle an animal approaching the road from the verges when a vehicle is approaching from either direction, thereby encouraging the animal to pause before continuing to cross the road.

In 2009 the Mull Bird Group raised funds and installed a number of reflectors at Salen, Pam Brown compiled the following report (see appendix a).

South of Tobermory on road A848 a number of wildlife warning reflectors have been installed to help prevent vehicle collisions with deer.

In 2013 The Mull Otter group was formed. One of the group's aims is to reduce otter deaths on the roads. Very little information or guidance could be found on the use of wildlife warning reflectors or how they should be installed to protect otters, therefore sites for a trial of wildlife warning reflectors were identified, surveyed and reflectors installed at various heights and distances. These sites are:-

Fishnish	NM 62978 / 43121
Pennygown	NM 61010 / 43313
Garmony	NM 68231 / 39327
Ardlussa a)	NM 69680 / 30747
b)	NM 69771 / 30801
c)	NM 69818 / 30841

Other potential sites include, Pennycross, Killunaig, Beach, Loch Don and Salen, however difficult geographical conditions may preclude installation.

Permission was obtained from Argyll and Bute Council to install the reflectors and liaison with council roads teams was carried out to prevent damage from council activities such as roadside verge cutting.

Mull Otter Group raised funds from different sources including membership fees, personal donations, sale of goods, plant sales and attendance at shows.

Wildlife warning reflectors were purchased, together with mounting posts.

Mull Otter Group volunteers installed the reflectors and are maintaining them, cleaning reflectors and keeping grass and undergrowth cut short.

### DETAILS

The wildlife warning reflectors used were Swarflex Wildlife Warning Reflector Model No 7172, (white level, Industrial rubber co).

These were mounted on pressure treated timber, 75mm / 50mm round fence posts.

The costs were £25.00 each including posts.

## SITE 1. **FISHNISH**

**History.** Since records began in 1983, five otters have been killed on the road A849 (a twin carriageway road) in the vicinity of a drainage culvert at grid reference NM 62978 / 43121 and a further two otters have been killed very close to this point. As in many other locations on Mull otters appear to sometimes use the culvert to get to the other side of the road, but also frequently cross the actual road at, or near to the culvert. Due to these occurrences, it was decided to install a number of reflectors centred on the culvert.

**Reflectors.** First installation near Fishnish Timber Pier went ahead on 14/02/2016. 40 reflectors were installed (20 on each side of the carriageway, 10 each side of the culvert) on a trial basis to assess the distances and heights used - they were mounted on 75mm diameter, round, pressure treated timber fencing posts, 1.5m from carriageway, posts 2m apart. Reflector base 15cm from ground level with reflectors facing away from carriageway. People visiting the Mull Otter Group Facebook site were asked to report if they spot any otters crossing near the reflectors.

## SITE 2. **PENNYGOWN**

**History.** Since records began in 1983, eleven otters have been killed on the road A849 (a twin carriageway road) in the vicinity of grid reference NM 61010 / 43313. Although there is no one specific spot where several otters have been killed, this installation encompasses most of the recorded deaths in the vicinity. Note that earlier records did not have the more accurate 10 figure GPS grid reference, which has been available since 2013 and may therefore only be accurate to 100m.

**Reflectors.** This was the second installation and is near to Pennygown quarry. The reflectors were installed on 27/11/2016. 40 reflectors were installed (20 on each side of the carriageway, encompassing the sites of two recent RTA incidents and several crossing places). They were mounted on 75mm diameter, round pressure treated timber fencing posts 1.5m from carriageway, posts 2.5m apart. Reflector base 25cm from ground level with reflectors facing away from carriageway. People visiting the Mull Otter Group Facebook site were asked to report if they spot any otters crossing near the reflectors.

## SITE 3. **GARMONY**

**History.** Since records began in 1983, three otters have been killed on the road A849 (a twin carriageway road) in the Garmony area. On February 16th 2017 an adult Female otter was killed on the road at NM 68231 / 39327, she appears to have two cubs around 10 months old. These cubs were observed to be active in the bay near to the site of their mother's death and were hopefully mature enough to survive.

An otter was also observed crossing the road at the same spot (believed to be one of the cubs). From this crossing point several paths lead up to the road and into a wet area and woodland. On 04/05/2017 an adult female otter was killed at NM 68190 / 39373 which is 70m north of the previous otter. There are several crossing paths in the area but the main

ones converge at the Southern end of the West side crash barrier and so It was decided to purchase and install reflectors at this spot in an attempt to prevent further deaths here.

**Reflectors.** This was the third installation of reflectors and was installed on 18/03/2018. This was a difficult installation due to the presence of the Armco crash barrier – continuous on the East side of the road and a tapering end on the West side. It was decided to install reflectors at ground level in 8 positions and 4 above the height of the crash barrier, where there is no visual gap between the barrier and the ground.

#### West Side

The 3 higher reflectors were fitted to 75mm round, pressure treated fence posts the base of the reflector 58cm above ground level. The posts were installed behind the crash barrier 1.5m apart, 1.5m from the carriageway. The 2 lower level reflectors were fitted to 50mm round pressure treated posts, each side of the visible otter path at the end of the crash barrier 1.5m from the carriageway, with the base of the reflector 15cm above ground level.

#### East Side

The one higher reflector was fitted to a 75mm round pressure treated fence post with the base of the reflector 60cm above ground level, the post was installed behind the crash barrier, 1.5m from the carriageway. The 6 lower reflectors were fitted to 50mm round pressure treated posts, all installed behind the crash barrier, 1.5m apart and 1.5m from the carriageway, with the base of the reflector at ground level to maximise the amount of useable reflector area. This will require grass and foliage to be kept at a low level.

### SITE 4. **ARDLUSSA**

**History.** Since records began in 1983, one otter was killed on the road A849 (a single carriageway road) at grid reference NM 69680 / 30747, a female with cubs (which are believed to have survived). A second otter was killed nearby earlier. Otters have since been seen crossing the road at this location and at two further locations close to this point. As this area is frequently used by otters for crossing the road, it was decided to install reflectors at all three points.

**Reflectors.** This fourth installation of reflectors was carried out on 18/03/2018. 29 reflectors were installed over 3 sites at this location. They were fitted to 50mm round pressure treated posts. All reflectors were installed 1.5m apart and 1m from the carriageway, with the base of the reflector 15cm above ground level.

**Ardlussa a) (westerly site)**

4 reflectors were installed on the South side of the road, centred on a well-used crossing path.

5 reflectors were installed on the North side of the road centred on the well-used crossing path.

**Ardlussa b) (middle site)**

5 reflectors were installed on the South side of the road, centred on the culvert.

4 reflectors were installed on the North side of the road, 1 each side of two offlets (drainage channels).

**Ardlussa c) (easterly site)**

5 reflectors were installed each side of the road centred on a well-used crossing path.

All reflector installations will require periodical maintenance, cleaning reflector lenses, cutting grass and undergrowth and checking the condition of both reflectors and wooden posts.

**Potential problems****Damage**

From vehicles, council mowing activities, live- stock and wildlife.

**Human Interference**

Removing reflectors, vandalism.

**Otters Changing Crossing Point**

If otters are disturbed by the action of the reflector, it is possible that they may move the point at which they cross the road, hence rendering the reflectors redundant.

**Follow up studies**

Regular site inspections should be made to ascertain if otter crossing paths and spraint sites are still being used, this could be done in conjunction with maintenance visits. Recording of visual sightings of otters crossing the road both at the reflector installations and nearby, both in daylight hours and when it is dark.

**TO DATE 02/04/2018** No further deaths have been reported in the 4 installation areas.

## Appendix a

### Otter Reflectors A Report by Pam Brown 26th November 2010

In June 2009 the Isle of Mull Bird club accessed money from the MICT Eagle Fund. A sum of £363 was used to purchase forty otter reflectors to be put up on the road verges between Salen village and Aros Castle after up to eight Otters had been killed around this stretch of road during the previous year. It was done in the hope of preventing the same happening again. The otter reflectors were put in place with the help of Argyll & Bute Council during the autumn of 2009. In July 2010 it was brought to the committee's notice that 'at least 10 of the roadside otter warning reflectors/posts along Salen bay were smashed up by the road side grass cutter'. An email was sent to Kaz Bailey of Argyll & Bute Council who replied that 'the grass/bracken had grown around and was taller than the reflectors which made them difficult to see. Although the flail might have hit and damaged the first reflector accidentally, the operator would not then have continued and demolished the lot! A high number of vehicle drivers will often drive onto the verge rather than use the passing places; it is highly likely that they smashed up the reflectors'. Kaz offered, as a gesture of goodwill, to pay for the replacement of the damaged reflectors and installation of same. The matter could not be discussed until we had a full committee meeting during September where it was agreed that we would need to walk the road to check how many reflectors have been damaged. In November 2010 Bird Club members Eileen Slorach and Tangye Johns walked the stretch of road where the otter reflectors had been placed and reported back that by this time there were only 7 reflectors left standing and 4 mangled reflectors. They concluded that during a twelve month period almost all the otter reflectors had gone. The matter was again discussed at the November committee meeting and it was unanimously agreed that as almost all the reflectors had been damaged, if we tried to replace them, the same thing would almost certainly happen again. During the twelve months that the reflectors were in place no otters were reported killed on this stretch of road. This could be due to the fact that there were no otters there (as they had been killed the previous year) and wildlife tour operators agreed that otters were rarely seen in Salen Bay this summer. As the reflectors are so small and the growing grass and bracken covers them, it was decided that the efficiency of the reflectors was inconclusive.

## SITE PHOTOGRAPHS

### FISHNISH





## PENNYGOWN







GARMONY





ARDLUSSA a)



ARDLUSSA b)









ARDLUSSA c)



Nigel Burch Mull Otter Group 2018