

Environment & Heritage Service

NORTHERN IRELAND SPECIES ACTION PLAN

OTTER

April 2008

Northern Ireland Species Action Plan
Otter *Lutra lutra*
April 2008

1 Current Status

- 1.1** The European otter *Lutra lutra* is classed within mustelidae, a group of carnivorous mammals that also includes the pine martin *Martes martes*, stoat *Mustela erminea hibernica* and badger *Meles meles*. The otter is our largest mustelid with adult males on average weighing around 11kg and measuring 120cm from the nose to the tip of the tail. Females are generally smaller weighing around 7kg and measuring 110cm from nose to tip. The otters characteristic features include a broad, flat head, a streamlined body and a thick, long, tapering tale (Hayden & Harrington, 2000; Woodroffe, 2001).
- 1.2** The otter is widely distributed across Europe, Asia and Africa, although it is in serious decline or extinct in many parts of its range. Originally the species was widespread throughout Europe, but populations declined during the 1960s and 1970s due to pollution, hunting and habitat loss. In the UK, otter conservation efforts have focused on improvements in riparian habitat and water quality and the trend now appears to be reversing with otter sightings increasingly being reported in former habitats (Preston *et al.*, 2004).
- 1.3** The otter is found throughout Ireland in both riparian and coastal habitats. In general, populations seem to have escaped the large declines that have occurred in other countries. Ireland is now considered to hold the densest population of otters in western Europe and it is therefore of international importance (Hayden & Harrington, 2000).
- 1.4** The species is widely distributed throughout Northern Ireland with the highest percentage of otters occurring around lakes, large rivers and generally unpolluted sites. Otters are indicators of a healthy river system with relatively unpolluted water, good fish stocks and bankside vegetation. The species however may have suffered from a slight decline in density over the past 20 years (Preston *et al.*, 2004).
- 1.5** Otters can be found in a wide range of aquatic habitats including ditches, streams, ponds, lakes, rivers, estuaries and coastal areas. Otters occupy dens known as holts and tend to use breeding holts (natal dens) in remote undisturbed areas. A holt can be formed from holes in the river bank, hollow trees, cavities in rocks, log piles and tree roots. Otters can also shelter above ground on couches of vegetation in scrub, tall herbs, reeds and long grass (Construction Industry Research and Information Association (CIRIA), 2004, Woodroffe, 2001).
- 1.6** Otters are active all year round and occupy linear home ranges that are dependant on food availability. They are territorial and mark their home ranges by depositing spraints at distinct landmarks (Hayden & Harrington 2000). An otter territory may range from 1-40km in length (CIRIA, 2004). Sprainting is considered to be an important means of communication between otters (Woodroffe, 2001).

- 1.7** Otters can breed at any time of year. Females usually breed only once in a year and on average produce a litter of two to three cubs. Females give birth in natal dens that are secluded and up to 1km away from main watercourses. Cubs remain dependent on the mother for up to 12 months (CIRIA, 2004; Hayden & Harrington, 2000; Woodroffe, 2001).
- 1.8** The diet of the otter varies according to habitat and food availability. In Northern Ireland the primary food source consists of fish but other prey may include frogs, crayfish, birds and small mammals (Preston *et al.*, 2004).
- 1.9** The main priorities for conservation and restoration should aim to preserve water quality and provide suitable habitat for the otter. These are important requirements for maintaining the internationally important population of otters in Northern Ireland (Hayden & Harrington, 2000).
- 1.10** The otter receives strict protection under Appendix II of the *Convention on the Conservation of European Wildlife and Natural Habitats* (Berne Convention). It is also listed under Annex II and IV of the *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora* (EC Habitats Directive), as a species which is of European interest and which requires strict protection and designation of special conservation areas. In Northern Ireland the otter is fully protected under of the *Wildlife (Northern Ireland) Order 1985* and the *Conservation (Nature Habitats, etc.) Regulations (Northern Ireland) 1995*. The otter is a UK Biodiversity Action Plan (BAP) Priority Species and a UK SAP Steering Group exists. Northern Ireland is represented on this group. The European sub-species is listed as globally threatened on the IUCN/WCMC Red Data List.

2. Current Factors Causing Loss or Decline

- 2.1** Development along waterways and in flood plains has impacted significantly on otter habitat. Structures installed into waterways to control water levels, such as weirs and mills often restrict the movement of the species and many others such as road bridges introduce new hazards. Their main effect is to encourage otters to exit the water at these points often onto busy local roads.
- 2.2** Poor water quality is a major threat to freshwater habitats in Northern Ireland. Agricultural run-off containing fertilizers, pesticides and herbicides can lead to a reduction in the prey species of otter such as fish and crayfish. Poor water quality resulting from pollution, toxic discharges and residual contamination is a threat to otters. In addition, high organic loadings, generally from sewage treatment works and slurry run-off, can have high biological oxygen demands and may reduce oxygen levels to a point that affects fish and other otter prey species.
- 2.3** Historical land drainage and flood defence works have resulted in the extensive alteration of watercourses of Northern Ireland. The widening, straightening and deepening of waterways and the drainage of adjacent land has resulted in widespread habitat loss for otters and other wildlife. The increase in the number of in-stream structures, together with poor water quality, has reduced the sustainability of fish

populations and the removal of scrub vegetation and overhanging trees has made long stretches of watercourses now unsuitable for otters.

- 2.4 The fragmentation of suitable habitat can lead to a decline in appropriate habitat features needed for breeding and resting, particularly holts, impacting on otter populations.
- 2.5 In many areas intensive agricultural practice and grazing pressure, the expansion of fisheries and angling and flood defence operations have considerably reduced riparian habitat. The removal of habitat, such as reedbeds, riparian woodland and individual riverbank trees has deprived otters of resting sites and foraging areas.

3. Current Action

- 3.1 In 1980/1981, the Vincent Wildlife Trust carried out the first systematic all-Ireland survey of otters and their wetland and coastal habitats (Chapman & Chapman, 1982). The survey recorded otters to be widely distributed in a diverse range of wetland and coastal habitats. In Northern Ireland, however, large areas of Counties Antrim, Down, Fermanagh and Londonderry fell outside the alternate selected 50km squares which were surveyed. Therefore the results did not give a true representation of otter distribution and abundance in Northern Ireland.
- 3.2 In 2001/2002, the Environment and Heritage Service (EHS) commissioned a survey on the distribution of otters in Northern Ireland (Preston *et al.*, 2004). The aim of this survey was to reassess and expand current information on the distribution of otters and obtain information on otter distribution and abundance around the shores of Upper Lough Erne Special Area of Conservation (SAC). Although the survey revealed a decline in the occurrence of otters since the original survey carried out by the Vincent Wildlife Trust in 1980-1981, the otter population in Northern Ireland is still in a healthy condition.
- 3.3 In 1992, the EC adopted the *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, known as the 'Habitats Directive'. The Directive, which is transposed into Northern Ireland legislation through the *Conservation (Natural habitats etc) Regulations (Northern Ireland) 1995*, requires member states to designate and manage SACs for selected habitats (listed in Annex I) and species (listed in Annex II). The otter is listed in Annex II of the Directive. The otter is present as a qualifying feature of the Owenkillew River SAC, River Foyle and Tributaries SAC, Upper Ballinderry River SAC and Upper Lough Erne SAC, but the species is not the primary reason for their selection.
- 3.4 Under the *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985*, Areas of Special Scientific Interest (ASSIs) and Nature Reserves (NR) are identified and declared by the Department of the Environment through the EHS. *The Environment (Northern Ireland) Order 2002*, strengthened the protection of ASSIs, recognising the importance of working in partnership with owners and occupiers and facilitating the positive management of these sites. There are currently a large number of ASSIs and NRs that support otter populations.

- 3.5** The Management of Sensitive Sites (MOSS) scheme was launched in 2002 by EHS. It is a voluntary scheme designed to ensure the positive management of site features within ASSIs. Under the scheme, landowners can receive an annual payment for carrying out conservation work within the framework of a written agreement or a discretionary payment for one-off works that will aid management of the site for wildlife. The MOSS scheme covers vegetation management, nutrient management, drainage and control of water levels and control of invasive species.
- 3.6** In 2000, the Northern Ireland Biodiversity Group (NIBG) produced its recommendations to Government (NIBG 2000). These were accepted by the Northern Ireland Executive in 2002, with the publication of the *Northern Ireland Biodiversity Strategy* (DOE 2002). The otter is included on the initial list of Northern Ireland priority species considered to require Species Action Plans (SAPs).
- 3.7** Water quality is essential to the maintenance and conservation of suitable otter habitat. In Northern Ireland, water quality is governed by a number of regulations, including the *Pollution of Waters by Dangerous Substances Regulation 1990*, the *Urban Waste Water Treatment Regulations (Northern Ireland) 1995*, the *Protection of Water Against Agricultural Nitrate Pollution Regulations (Northern Ireland) 1996*, the *Environment (Northern Ireland) Order 2002*, the *Pollution Prevention and Control Regulations (Northern Ireland) 2003*.
- 3.8** EC Directive 2000/60/EC, *Establishing a Framework for Community Action in the Field of Water Policy* or the Water Framework Directive (WFD), was transposed into Northern Ireland law by the *Water Environment (WFD) Regulations (Northern Ireland) 2003*. The WFD sets a framework for comprehensive management of water resources in the European Community, within a common approach and with common objectives, principles and basic measures. It will be the driving force behind the setting of acceptable water quality standards on which all naturally occurring standing waters depend for the maintenance of their ecological integrity.
- 3.9** There is a requirement under Article 6 of the WFD to create a register of all areas which have been designated as requiring special protection under specific European Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water within river basin management plans (RBMP) by 2005. Northern Ireland must achieve compliance with the WFD standards and objectives relating to these protected areas by December 2015. There is an onus on the UK government under the WFD to ensure that any changes in water quantity and quality do not adversely affect sites of international importance. Other EU Directives that are currently concerned with water quality will eventually be subsumed into the WFD.
- 3.10** The Rivers Agency, as the statutory Drainage and Flood protection Authority for Northern Ireland, are responsible for maintaining the effective drainage function of designated watercourses under the *Drainage (Northern Ireland) Order 1973*. All drainage and flood defence proposals are subject to the *Drainage (Environmental Assessment) Regulations (Northern Ireland) 1991*, as amended, which require an assessment at planning stage of the environmental impact of the proposed works. The Rivers Agency consults with EHS on their annual programme of drainage maintenance, where this may have an impact on designated sites of nature

conservation importance. River Corridor Surveys are undertaken prior to river maintenance work to identify any important features, habitats or species and to ensure their protection. Environmentally sensitive working practices are applied on all watercourses to conserve, protect and where appropriate improve habitat (DOE 2000). In the past river enhancement and restoration works have included the installation of artificial otter holts and the creation of log piles to benefit the otter.

- 3.11** The Department of Culture, Arts and Leisure (DCAL) Inland Fisheries is responsible for the establishment and development of fisheries. They carry out fish stock assessments, fish habitat surveys and management of fisheries habitat. DCAL Inland Fisheries also carry out fisheries enhancement work to improve river structure and enhance biodiversity. The Fisheries Conservancy Board (FCB) and the Loughs Agency are also responsible for the protection and conservation of fish stocks in their respective areas. The protection of fish stocks and the improvement and enhancement of rivers for fisheries also has considerable benefits for the otter.
- 3.12** The Department of Agriculture and Rural Development (DARD), through its Countryside Management Branch (CMB), have developed a series of agri-environment schemes. These include the Environmentally Sensitive Area Scheme (ESAS) (revised in 2003) and the Countryside Management Scheme (CMS). A further revision to both the ESAS and CMS has recently been approved under the current Northern Ireland Rural Development Programme (2000-2006). The objectives of the schemes are to protect both habitats and species by encouraging more sensitive management practices. Both schemes have similar management provisions, are voluntary and apply to the whole farm. They provide a useful mechanism for delivering the targets listed in a number of species and habitat action plans. These schemes financially reward farmers who undertake management above Cross Compliance and Good Farming Practice requirements to enhance biodiversity, water quality, landscape and heritage features on the farm.
- 3.13** The CMS has a voluntary option to protect and enhance grass margins adjoining watercourses. Grass margins are required to be at least 2m wide and of a length which DARD will decide. The option of creating grass margins promotes the protection of sensitive habitats from pesticide drift or nutrient enrichment. No grazing, and usually no mowing, is allowed within the buffer strip and funds are available for fencing.
- 3.14** A new agri-environment scheme, called the NICMS (Northern Ireland Countryside Management Scheme), will be launched in late Spring/early summer 2008. The NICMS is an integral part of the Northern Ireland Rural Development Programme 2007 – 2013 (NIRDP). This programme is part-financed by the European Agricultural Fund for Rural Development (EAFRD) with co-funding provided by the Department of Agriculture and Rural Development (DARD). The NICMS will play an important role in delivery of Axis 2 of the NIRDP - Improving the environment and the countryside through land management.
- 3.15** The NICMS aims to make a major contribution to the conservation action required for many Northern Ireland priority habitats and species. The habitat management plans in NICMS specify how farmers and land managers can best contribute to the conservation of these priority habitats and species

- 3.16** An EU LIFE Project entitled Life in UK Rivers has developed methods for conserving the wildlife and habitats of rivers within the Natura 2000 network of protected European sites. This includes reports on the ecology, monitoring and breeding. The reports include details on specific habitat requirements and monitoring protocols for otter.
- 3.17** EHS has produced a *River Conservation Strategy for Northern Ireland* (DOE, 2000) outlining its role and responsibility in protecting, conserving and enhancing the natural and built heritage values of rivers in Northern Ireland and facilitating their sustainable use.
- 3.18** Forest Service managed areas and grant-aided woodland must comply with the UK Forestry Standard, the government's approach to sustainable forestry (Forestry Commission & Department of Agriculture for Northern Ireland 1998). Field practices must closely adhere to recommendations described in Forest and Water guidelines (4th edition), which is considered a pre-requisite of sustainable forestry in water catchment areas.
- 3.19** The UK Woodland Assurance Standard is a voluntary certification standard against which current standards of forest management can be measured. The Forest Service has retained certification since 2000. One requirement of the Standard is that management is sensitive to local biodiversity interests, which may be rare or threatened species.
- 3.20** Regional Planning and Transportation division within DRD is responsible for the implementation of the *Regional Development Strategy* (RDS) for Northern Ireland 2025, which provides an overarching framework for competitive and sustainable development in Northern Ireland (DRD 2001). Operational policies to give effect to the Strategic Planning. Guidelines of the RDS are contained in Planning Policy Statements (PPSs).
- 3.21** Planning Service assesses the impact of development proposals on wildlife using policies in *Planning and Policy Statement 2 – Planning and Nature Conservation* (currently under review). EHS is the statutory consultee to Planning Service and provides advice on site specific impacts both within designated and non-designated rivers, when requested to do so. Impacts of development proposals on otters are assessed and the proposals amended or mitigated to ensure continued use of suitable habitat.
- 3.22** Site protection policies are included in Development Plans. These include the identification of Sites of Local Nature Conservation Importance (SLNCIs). Planning Service is currently considering which SLNCIs will be formally identified in Development Plans. Where such sites are confirmed in adopted plans, specific planning policies will be applied to development proposals on those sites.
- 3.23** The development of Local Biodiversity Action Plans (LBAPs) based on District Council areas and/or discrete landscape areas, and the appointment of Local Biodiversity Officers will help to build on the SLNCI network and encourage, co-ordinate and inform local biodiversity action.

- 3.24** The *Road Service Environmental Handbook* (DOE 1998) was produced to provide guidance on the maintenance of roadside verges. While the handbook helps to recognise the importance of herb-rich roadside verges, it does not prescribe specific management measures.
- 3.25** Records are currently stored in the Museum and Galleries of Northern Ireland (MAGNI) at the Centre for Environmental Data and Recording (CEDaR). CEDaR was established in 1995 in partnership with EHS, MAGNI and the biological recording community. There are currently over 1.4 million records held by CEDaR and there are plans underway to make these records more accessible through the Internet. This will be achieved through the National Biodiversity Network, a union of organisations throughout the UK working together to create an information network of accessible biological data for biodiversity information. There are currently 1338 records of otter on CEDaR.
- 3.26** Other relevant information is gathered through specialist recording groups, Non-Governmental Organisations (NGOs), universities and other government bodies.

4. Action Plan Targets

- 4.1** Maintain the current distribution of the otter throughout Northern Ireland at 148 occupied 10x10km squares.
- 4.2** Expand the range of otters to 156 occupied 10x10 km squares by 2010.
- 4.3** Expand the range of otters to 161 occupied 10x10 km squares by 2015.

5. Proposed Action with Lead Agencies

5.1 Policy & Legislation

- 5.1.1** Ensure site protection and conservation policies for the otter are included in development plans, road and development design, LBAPs, and other policy documents.
(ACTION: DOE, District Councils)
- 5.1.2** Ensure that any future revision of agri-environment schemes and MOSS schemes includes, where appropriate, the habitat requirements of the otter and the potential for habitat enhancement, restoration and management.
(ACTION: DARD, EHS)
- 5.1.3** Ensure positive management for otter through agri-environment schemes, MOSS schemes, LBAPs and grant aid for biodiversity, to secure favourable management on watercourses and land adjacent to watercourses.
(ACTION: EHS, DARD, DRD)

5.2 Site Safeguard & Management

- 5.2.1 By 2009, ensure that designated otter sites are properly recognised within River Basin Management Plans as required by the Water Framework Directive.
(ACTION: EHS)
- 5.2.2 Ensure that drainage and maintenance works fully adhere to the requirements of the Wildlife (Northern Ireland) Order 1985 in relation to otters and their holts.
(ACTION: EHS, Rivers Agency)
- 5.2.3 Ensure all otter sites are recognised and, where appropriate, site protection policies are included in statutory and non-statutory plans e.g. Development Plans and other strategic plans including Local Biodiversity Action Plans (LBAPs).
(ACTION: Planning Service, EHS, DARD, District Councils)
- 5.2.4 Ensure all operations affecting watercourses take account of otters, retaining features such as old trees, scrub and overhanging root systems.
(ACTION: Planning Service, Rivers Agency, EHS, DRD, DCAL, District Councils)
- 5.2.5 Encourage the creation of log piles and construction of artificial holts adjacent to watercourses where the habitat is considered to be suitable for otters.
(ACTION: EHS, Rivers Agency)
- 5.2.6 Encourage long-term floodplain and riparian tree planting schemes.
(ACTION: EHS, DARD)
- 5.2.7 Ensure that watercourses and adjacent habitats are managed appropriately by local authorities, landowners and managers to support and encourage the expansion of otter populations.
(ACTION: EHS, DARD, DRD, DCAL)
- 5.2.8 By 2010, where appropriate, secure favourable management of the riparian zone i.e. creation of fenced buffer strips along river banks to protect river margins from the impacts of erosion, trampling and pollution from livestock.
(ACTION: EHS, DARD)

5.3 Species Management & Protection

- 5.3.1 By 2008, establish an otter forum to co-ordinate conservation, information exchange, publicity and research.
(ACTION: DOE, DARD, DCAL, District Councils)
- 5.3.2 By 2008, develop a strategy for the conservation and monitoring of the otter.
(ACTION: EHS)
- 5.3.3 By 2015, ensure that all watercourses are managed in a manner that is beneficial to the conservation of the otter.
(ACTION: EHS, Rivers Agency, DCAL)

5.4 Advisory

- 5.4.1 By 2008, produce advisory leaflets highlighting the conservation issues surrounding the otter, detailing optimum habitat requirements and providing advice on practical habitat management. Ensure that this information is available to all those who could play a role in its conservation and recovery.
(ACTION: EHS)
- 5.4.2 Advise conservation agencies, agri-environment scheme staff, land owners, fisheries managers and all watercourse users on otter conservation and practical habitat management and how to incorporate this with other management priorities and interests.
(ACTION: EHS, DARD, DCAL)
- 5.4.3 Ensure the conservation importance and management requirements of the otter are incorporated into any relevant national and LBAPs.
(ACTION: EHS, District Councils)

5.5 International

- 5.5.1 Develop links with the Republic of Ireland and other European and international organisations and programmes such as the European Environment Agency and the European Centre for Nature Conservation, to promote the exchange of information and experience in research, management techniques, education and conservation strategies.
(ACTION: EHS)

5.6 Future Research & Monitoring

- 5.6.1 By 2008, determine optimal water quality requirements for standing and running waters for otters.
(ACTION: EHS)
- 5.6.2 Ensure that the status and distribution of the otter in Northern Ireland is surveyed and monitored every 5 years.
(ACTION: EHS)
- 5.6.3 By 2008, identify and prioritise sites where suitable enhancement, restoration and management works may be considered to benefit the otter.
(ACTION: EHS)
- 5.6.4 By 2010, set up an otter causality collection scheme through existing agencies and voluntary groups to encourage members of the public to report otter causalities and ensure that all otter carcasses are sent for post-mortem and pesticide analysis.
(ACTION: EHS)
- 5.6.5 Identify key agencies prepared to store, prepare and analyse otter carcasses as part of the otter causality collection scheme.
(ACTION: EHS)

- 5.6.6 By 2009, conduct research into the ecology and genetics of the otter to help accurately assess otter populations in Northern Ireland.
(ACTION: EHS)
- 5.6.7 By 2009, investigate the potential factors limiting the expansion of the otter i.e. prey availability and the relationship between prey availability and water quality.
(ACTION: EHS)

5.7 Communications & Publicity

- 5.7.1 Publicise this action plan to raise awareness of the otter, its conservation requirements and the importance of conservation management. Continue with regular press articles in key areas providing information to local communities on the importance of otter.
(ACTION: EHS, DARD, DCAL, District Councils)
- 5.7.2 Promote the otter as a high profile flagship species to highlight the importance of water quality and riparian habitats to biodiversity.
(ACTION: EHS)
- 5.7.3 By 2008, produce information for the general public and schools which explains concepts of biodiversity and the conservation importance of the otter in Northern Ireland.
(ACTION: EHS)

6 Links with Other Plans

- 6.1 It is likely that the implementation of this plan will also benefit the Northern Ireland populations of the following species:
- Pollan *Coregonus autumnnalis*
 - Freshwater pearl mussel *Margaritifera margaritifera*
 - White-clawed crayfish *Austropotamobius pallipes*.
- 6.2 This plan should be considered in conjunction with the following UK and Northern Ireland Habitat Action Plans:
- Mestrophic Lakes
 - Eutrophic Standing Waters
 - Fens
 - Marl Lakes (NI only)
 - Wet Woodland
 - Maritime cliff and slopes
 - Coastal sand dunes
 - Coastal vegetated shingle
 - Coastal saltmarsh
 - Saline lagoons
 - Sheltered muddy gravels
 - Mudflats
- 6.3 There may be additional links with species and habitats listed in the Northern Ireland Biodiversity Strategy.

7 Key References

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List of useful Acronyms

ASSI	Area of Special Scientific Interest
BAP	Biodiversity Action Plan
CEDaR	Centre for Environmental Data and Recording
CMB	Countryside Management Branch
CMS	Countryside Management Scheme
DARD	Department of Agricultural and Rural Development
DCAL	Department of Culture, Arts and Leisure
DETI	Department of Enterprise, Trade and Investment
DENI	Department of Education for Northern Ireland
DOE	Department of the Environment
DRD	Department for Regional Development
EHS	Environment and Heritage Service
ESA	Environmentally Sensitive Area
ESCRs	Earth Science Conservation Review Site
FCB	Fisheries Conservancy Board
HAP	Habitat Action Plan
JNCC	Joint Nature Conservation Committee
NMNI	National Museums of Northern Ireland
NESA	New Environmentally Sensitive Area
NIBG	Northern Ireland Biodiversity Action Group
NICMS	Northern Ireland Countryside Management Scheme
NICS	Northern Ireland Countryside Survey
NNR	National Nature Reserves
NT	National Trust
PPS	Planning Policy Statement
RA	Rivers Agency
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SLNCI	Site of Local Nature Conservation Importance
SoCC	Species of Conservation Concern
SPA	Special Protection Area
UWT	Ulster Wildlife Trust
WFD	Water Framework Directive
WWT	Wildfowl and Wetlands Trust



Our aim is to protect, conserve and promote the natural and built environment for present and future generations.

**Environment & Heritage Service
Klondyke Building
Cromac Avenue
Gasworks Business Park
Lower Ormeau Road
Belfast
BT7 2JA
Tel: (028) 9056 9273**

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