

# Shannon Dolphin and Wildlife Foundation

## 3 Year Development Plan: 2007-2009

The Shannon Dolphin and Wildlife Foundation (SDWF) was established in March 2000 to formulate and implement a plan for the development of sustainable dolphin-watching in the Shannon Region. It was granted charitable status in October 2003 to: “develop and provide educational awareness and conservation of the Shannon dolphins and other wildlife in the region”.

As part of the continued development of the SDWF we have prepared a vision for fulfilling the potential of the organization and the Shannon dolphins for education and conservation. We are seeking partners to deliver this three-year plan and costing is presented for Year 1 (2007).

### Achievements of the SDWF

The SDWF have grown into a credible and influential group, which has had an impact on the conservation, educational awareness of and research on the Shannon dolphins.

*Conservation:* The SDWF has been carrying out photo-identification of the dolphins in the estuary since 1993 (originally under the auspices of the Irish Whale and Dolphin Group) and carried out dolphin tour boat monitoring on contract to the National Parks and Wildlife Service (NPWS) since 2000. A tour boat accreditation scheme was launched in April 2000, which has formed the basis for the regulation of whale and dolphin-watching throughout Ireland. SDWF also carry out dolphin monitoring in the estuary in compliance with Department of Marine Foreshore and Disposal at Sea Licences.

*Education:* SDWF has contributed material to a number of organisations and publications on the Shannon dolphins, both through local and national media and facilitated major TV and film companies including; National Geographic, BBC, Channel 4, TG4, TV3 and RTE. A booklet “*Shannon Dolphins: A guide to the bottlenose dolphins in the Shannon estuary*” was published in May 2000 and a website [www.shannondolphins.ie](http://www.shannondolphins.ie) went on-line in September, 2003. The SDWF have contributed to three information boards on the dolphins in the estuary at Ballybunnion, Co Kerry and Kilrush, Co Clare. Since 2001 an education programme, in collaboration with the Heritage in Schools Programme, has been underway, where SDWF either visit local schools in the region or schools visit the Shannon Dolphin and Wildlife Centre before embarking on a dolphin trip. The SDWF initiated an annual awareness event (*Shannon Dol-fun*) in 2004. In 2003-2004 we were awarded a significant grant from LEADER to develop educational resources to compliment the *Soundwaves* project.

In 2006 SDWF contributed to the following community events and promotional activities:

- Biodiversity Day: Dromore Woods, Ennis, Co Clare
- BBC: 2 programs “The Next Level” and “Coast”
- RTE: 2 programs “RTE News” and “The Estuary”
- World Oceans Day, Oranmore, Co Galway
- Heritage Week (including Marine Mania and a Whale Watch Day)
- Blue Flag Awareness (12 Schools in 4 locations)
- Biodiversity on the Seashore (11 schools, 3 locations)
- Heritage in Schools (8 schools)



*Research:* The SDWF have been awarded a number of research grants including from NPWS, Heritage Council, EPA, Bord Iscaigh Mhara and the Vodafone Trust Foundation. The SDWF are pioneering the use of acoustics for monitoring bottlenose dolphins, through the Vodafone sponsored *Soundwaves* project where dolphin vocalisations, acquired from a fixed hydrophone can be transmitted and accessed remotely through the mobile phone network. Research grants from the Heritage Council and EPA were for biopsy and acoustic studies. Bord Iscaigh Mhara (BIM) funded a study on acoustic deterrents in the estuary in 2005. SDWF has collaborated with

the Marine Institute on a pollution study in the estuary and facilitated three MSc students from Bangor University. Students from GMT, TCD, UL, LIT and the University of Kraków have also used the SDWF facilities. See Appendix II for a list of papers and reports.

### Management Committee

The SDWF Management Committee includes Shannon Development, National Parks and Wildlife Service (NPW), Marine Institute, Clare County Council, Tuatha Chiarraí Teo (North Kerry LEADER), Kilrush Town Council, Carrigaholt Development Association, Kilrush Chamber of Commerce and all accredited dolphin tour boat operators (see Appendix I). The Committee meets about 4 times per annum.

### Shannon Dolphin and Wildlife Centre

The SDWF were awarded funding from the LEADER programme in 2003 towards developing educational material and facilities in the Shannon Dolphin and Wildlife Centre, which is adjacent to the Creek Marina in Kilrush.

These include; reference library for students up to third level, mounted whale and dolphin skeletons and a range of interactive material and games for younger age groups.



Interpretative and educational materials and displays in the Shannon Dolphin and Wildlife Centre

The Shannon Dolphin and Wildlife Centre is used for a number of activities and events, but the huge potential and value of the resources it incorporates means that it could be used even more effectively. Throughout the summer months the centre is open to the public (free access) to provide an interpretive centre educating people on the dolphins and other wildlife of the Shannon estuary. Approximately 1500 visitors visit the centre between June and September. It also provides an ideal site to facilitate school students, by introducing them to the marine environment and providing information and activities on local wildlife. Many resources have been developed to cater for such programs and the close proximity to the Shannon estuary means a visit to the centre can be incorporated with a dolphin-watching trip. The resources available and practicality for children, renders the centre of suitable use to host school holiday activities with a marine theme. Such events are attended by both local and visiting children and attract approximately 100 children per season. The centre also currently plays host to monthly meetings of the West Clare Wildlife Club, which attracts speakers of renown on various topics relating to the wildlife of the local region, thus enhancing the knowledge of local people. Approximately 80 local people are members of the group.

Development of a structured education plan, incorporating three areas of focus would allow the Shannon Dolphin and Wildlife Centre to be used even more effectively and broadly than it currently is. The three areas of focus include further development of the Research and Monitoring; Education; and Promotion of the work already conducted.

**Development Plan: 2007-2009**

The SDWF Development Plan includes the employment of three time part-time posts: Project Manager (part-time), Research Assistant (part-time), Education and Outreach Officer (part-time)

1.0 Research and Monitoring

Research on the dolphins in the estuary started in 1993 but projects have tended to be driven by short-term funding or post-graduate requirements. This has led to short, intensive studies. We propose to initiate a long-term monitoring programme, which we hope will provide information on longevity, reproduction rates and general biological information and support the education programme with recent information on the dolphins. We also propose to monitor activities in the estuary, which might impact on the dolphins or their habitats, particularly tour boat activity. This is important to ensure promotion of the economic potential does not impact on the conservation status of the dolphins and their habitat. The SDWF have pioneered acoustic techniques (under the project entitled *Soundwaves*) for monitoring dolphins and we propose to continue to develop this research activity.

Tasks:

- 1.1 *Develop acoustic methods for research and monitoring*
- 1.2 *Carry out dedicated boat transects in the estuary (2 per month from April to September; 1 per month October to March)*
- 1.3 *Monitor tour boat activity in the cSAC*
- 1.4 *Maintain and develop dolphin photo-identification catalogue*

	J	F	M	A	M	J	J	A	S	O	N	D
1.1 Acoustic research												
1.2 Boat transects												
1.3 Tour boat monitoring												
1.4 Photo-ID catalogue												

Aims and Deliverables by 2009

- 1. To have established the SDWF as a centre for acoustic research
- 2. To have developed an acoustic monitoring programme
- 3. To carry out regular boat transects to monitor the dolphins in the estuary
- 4. To have information on the potential effects of the main threats identified in the estuary on dolphins

2.0 Education

The education potential of the Shannon dolphins and the estuary is immense and needs to be developed. This will be achieved by appointing a part-time Education and Outreach Officer. An education and outreach programme, which will include participating in the Blue Flag Awareness, Clare Biodiversity Seashore trips, Heritage Week and many other events incorporated into a structured education programme. This will be developed with the Clare Education Centre in accordance with curricular requirements and specific areas of relevance.

The SDWF centre in Kilrush is a fantastic facility, which should be utilised more. The Education and Outreach Officer will facilitate school, local community groups and casual visitors to the Shannon Dolphin and Wildlife Centre. An education programme for National and Secondary schools in collaboration with the Clare Education Centre will be developed. There are an estimated 40 – 50 National schools in the Shannon region (incorporating West Clare, West Limerick and North Kerry). Approximately 25% of these could be targeted each year to receive an educational program/workshop based on a marine theme. In addition, recent interest in

developing projects and specific scientific skills (such as sampling methods and field techniques) indicates a need for such workshops with secondary schools. The Education and Outreach Officer will develop educational material including resources to be available in hard copy and on-line to be downloaded from through [www.shannondolphins.ie](http://www.shannondolphins.ie).

Tasks:

- 2.1 *Develop an education and awareness plan*
- 2.2 *Open Shannon Dolphin and Wildlife Centre daily from June-September*
- 2.3 *Expand links with schools through the Heritage in Schools and other schemes*
- 2.4 *Develop education resources*
- 2.5 *Organise Shannon Dol-fun every year*
- 2.6 *Attend local community open days and events to promote conservation of the Shannon dolphins and the estuary*

	J	F	M	A	M	J	J	A	S	O	N	D
2.1. Develop plan												
2.2 Open Centre												
2.3 Schools programme												
2.4 Shannon Dol-fun												
2.5 Outreach programme												

Aims and Deliverables by 2009

1. To have visited or facilitated all National schools in the region
2. To have established a course suitable for Secondary school curricula
3. To have posted resources for schools and children on the website ([www.shannondolphins.ie](http://www.shannondolphins.ie))
4. To deliver a course on dolphin ecology suitable for third level students

### 3.0 Promotion

The dolphins and other wildlife in the Shannon estuary are still poorly known both locally and nationally. The SDWF have been at the forefront in promoting the estuary for dolphins and its conservation status. We propose to continue to promote the Shannon in a more structured way. The SDWF do not propose to promote individual dolphin-watching operators but promote the Shannon estuary as a whole, by which all users and stakeholders will benefit.

Each year SDWF is approached by production companies to film the wildlife and aspects of the work being carried out in the Shannon estuary. The interest in the region and the dolphins of the estuary is increasing with each year and in 2006 SDWF was involved in filming with the BBC and RTE for a total of four projects. Depending on the story that is being told, this has clear benefits for promotion of eco-tourism, research and wildlife of the Shannon estuary both locally and overseas. Commitment to filming may range from two days to over a week and due to weather/sea conditions is usually concentrated in the summer months. Similarly, the attendance of SDWF at various community open day stalls and events such as Heritage Week (which in 2006 involved a marine themed event at Kilkee Beach and Whale Watch day at Loop Head), Biodiversity Day and World Oceans Day) promotes awareness and benefits for the Shannon region on a broader scale.

The SDWF plans to further develop and expand links with similar organisations both in Ireland and overseas. The SDWF facilities could be used as a field centre for third level research and education. This not only furthers access to a greater quantity of resources and knowledge, but also will allow promotion of the conservation work and unique status of the Shannon estuary further a field.

It is anticipated to develop an Adopt-a-Dolphin Scheme in the Shannon Estuary. Specific dolphins with distinct markings that are known to frequent particular areas will provide the basis for the information developed. It will provide an opportunity for people from all over the world to learn more about the conservation significance of the area and provide a more personal means of learning about the animals.

Tasks:

- 3.1 Develop a structured plan for the promotion of various aspects of SDWF interests, including eco-tourism in the Shannon Estuary, heritage and biodiversity
- 3.2 Facilitate a minimum of two film crews per year to promote awareness of the Shannon estuary wildlife
- 3.3 Promote links with third level institutions both in Ireland and overseas
- 3.4 Contribute to local media (radio, newspapers etc.)
- 3.5 Develop an Adopt-a-Dolphin Scheme

	J	F	M	A	M	J	J	A	S	O	N	D
3.1 Promotion plan												
3.2 Film crews												
3.3 Third level institutions												
3.4 Media												
3.5 Adopt-a-Dolphin												

Aims and Deliverables by 2009

- 1. To establish the Shannon estuary as a place for viewing wildlife, especially bottlenose dolphins
- 2. To establish a formal link with one third level institute
- 3. To establish a national Adopt-a-Dolphin scheme



Bottlenose dolphins



Shannon Dol-fun 2004



BBC filming for the "Next Level"

## Cost of Development Plan

Costing for the development plan has been presented in Workpackages. Each one is costed separately and funding will be sought to deliver each element. In addition to this work programme additional consultancy work including contributing to Environmental Impact Assessments is anticipated.

A budget for Year 1 (2007) is presented.

<b>1.0 Research and monitoring</b>	<b>€ 23,000</b>
Maintain <i>Soundwaves</i> and facilitate researchers	€ 5,000
Boat transects x €500 per transect	€ 9,000
Tour boat monitoring	€ 9,000
<b>2.0 Education</b>	<b>€ 15,000</b>
Education and Outreach Officer: Part-time	€ 10,000
Travel	€ 2,000
Resources	€ 3,000
<b>3.0 Promotion</b>	<b>€ 7,000</b>
Develop promotion plan (2 weeks)	€ 4,000
Presentations to 2 institutions per annum	€ 1,000
Contribute to media	€ 2,000
<b>Overheads</b>	<b>€ 5,000</b>
Equipment	€ 500
Insurance	€ 1,500
Office expenses: 250 per month	€ 3,000
<b>TOTAL</b>	<b>€ 50,000</b>

Funding to implement this development plan will be sought from a number of sources including the National parks and Wildlife Service (tour boat monitoring), Heritage Council, LEADER, Tuatha Chiarraí Teo, Clare County Council and Clare County Enterprise Board as well as commercial sponsors.

For more information see [www.shannondolphins.ie](http://www.shannondolphins.ie) or contact:

Dr Simon Berrow  
Project Manager  
Shannon Dolphin and Wildlife Foundation  
Merchants Quay, Kilrush, Co Clare, Ireland  
Tel/Fax: +353 65 9052326 Mobile: 00353 87 8545450

## **Appendix I: Shannon Dolphin and Wildlife Foundation Committee**

Cathal Blunnie\*, Lisroe Marine service, Doonbeg, Co Clare  
Siobhan Curran, Kilrush Town Council, Town Hall, Kilrush, Co. Clare  
Paul Edson, Kilrush Chamber of Commerce, Merchants Quay, Kilrush, Co. Clare  
Michael Fennell\* Fodera, Kilbaha, Kilkee, Co Clare  
Paul Griffin\*, Scattery Island Ferries, Cappa Road, Kilrush, Co. Clare  
Alison Healy, Tuatha Chiarraí Teo, Church Street, Tralee, Co Kerry  
Bernadette Kinsella, Clare County Council, New Road, Ennis, Co. Clare  
Dr. David Lyons, National Parks and Wildlife Service, Government Buildings, Cork.  
Geoff Magee\*, Dolphinwatch Carrigaholt, Kilkee, Co Clare  
Michael O'Connell, Carrigaholt Development Association, Doonaha, Carrigaholt, Co. Clare  
John Quinlivan (Chair), Shannon Development, Gort Road, Ennis, Co. Clare  
Robert Stack\*, Doon, Ballybunnion, Co Kerry  
Anne Wilkinson, Marine Institute, Rinvilla, Oranmore, Co Galway

(\* tour boat operator)

## Appendix II: Publications and Reports

### Peer-Reviewed publications

- Leeney, R.H., Berrow, S.D., McGrath, D., O'Brien, J., Cosgrove, R. and Godley, B.J. (2006) Effects of pingers on the behaviour of bottlenose dolphins. *Journal of the Marine Biological Association (UK)*. 86.
- Berrow, S.D., O'Brien, J. and Holmes, B. (2006) Whistle production by bottlenose dolphins *Tursiops truncatus* in the Shannon estuary. *Irish Naturalists' Journal* 28(5), 208-213.
- Berrow, S.D. & O'Brien, J. (2006). Scoliosis in bottlenose dolphins *Tursiops truncatus* (Montagu) in Ireland. *Irish Naturalists' Journal* 28(5), 219-220.
- Berrow, S. D. (2004) Framework for developing responsible whalewatching in Ireland and on other islands in the Northeast Atlantic. Proceedings of the 5<sup>th</sup> Fauna and Flora of Atlantic Islands conference, Dublin 24-27 August, 2004.
- Berrow, S. (2003) An assessment of the framework, legislation and monitoring required to develop genuinely sustainable whalewatching. In *Marine Ecotourism: Issues and Experiences*. Eds. Garrod, B and Wilson. J. Channel View Publications. ISBN 1-853150-42-3. pages 66-78.
- Berrow, S. (2003) Developing sustainable whalewatching in the Shannon estuary. In *Marine Ecotourism: Issues and Experiences*. Eds. Garrod, B and Wilson. J. Channel View Publications. ISBN 1-853150-42-3. pages 198-203.
- Berrow, S.D., McHugh, B., Glynn, D., McGovern, E., Parsons, K. Baird, R.W. and Hooker, S.K. (2002) Organochlorine concentrations in resident bottlenose dolphins (*Tursiops truncatus*) in the Shannon estuary, Ireland. *Marine Pollution Bulletin* 44, 1296-1313.
- Berrow, S.D. (2001) The potential for marine wildlife tourism in Ireland. 10<sup>th</sup> ATLAS annual conference, 4-5<sup>th</sup> October, 2001. Dublin, Ireland.
- Berrow, S.D. (2000) EU Habitats Directive and tourism development programmes in the Shannon estuary, Ireland. Paper presented at the Council of Europe conference on "Sustainable Tourism, Environment and Employment". 11-13 October, 2000. Berlin, Germany.
- Berrow, S and Ferriss, S. (2000) The Shannon dolphins: A guide to the dolphins in the Shannon estuary. Shannon Dolphin and Wildlife Foundation, Kilrush, Co Clare. ISBN 0 9540552. 32 pages.
- Berrow, S.D. and Holmes, B. (1999) Tour boats and dolphins: A note on quantifying the activities of whalewatching boats in the Shannon estuary, Ireland. *Journal of Cetacean Research and Management*. 1(2), 199-204.
- Berrow, S.D., Holmes, B. and Kiely, O. (1996) Distribution and abundance of Bottle-nosed dolphins *Tursiops truncatus* (Montagu) in the Shannon estuary, Ireland. *Biology and Environment. Proceedings of the Royal Irish Academy* 96B (1), 1-9.

### Monitoring Reports

Annual tour boat monitoring reports are submitted to the National Parks and Wildlife Service. Around 3-4 dredge monitoring reports are compiled annually for customers including Shannon Foynes Port Company and the ESB each year.

- Berrow, S. and O'Brien, J. (2004) Rock Armour Operation in the Shannon estuary: Dolphin monitoring report. Report to ESB International
- Berrow, S. (2002) Shannon Ferry Ltd. dredge disposal: Report on the monitoring of the possible impact on bottlenose dolphins in the Shannon estuary. Report to ESB.
- Berrow, S. D. (2001) Acoustic monitoring of bottlenose dolphins in the Shannon estuary at the proposed site of the Shannon crossing of the Bord Gáis pipeline. Report to M. C. O'Sullivan Ltd, August 2001.