



***WHALEFORCE***  
Conservation Action  
for  
Yachtsmen

A Proposal for an International Cetacean Survey

By  
Cochrane Ecological Institute  
PO Box 484  
Cochrane, AB T4C 1A7  
Canada



---

## **Table of Contents**

<i>Table of Contents</i> .....	1
<i>The Proponent</i> .....	2
<b>OBJECTIVE</b> .....	3
<b>WHY?</b> .....	3
<i>The Concept</i> .....	4
<i>The Critical Components</i> .....	5
1. <b>WHALEFORCE Members</b> .....	5
2. <b>Member Training</b> .....	6
3. <b>Whale Identification and CyberTracker</b> .....	7
<i>Work Plan</i> .....	10
<i>Task 1 - Internet Link to CEI</i> .....	10
<i>Task 2 - WHALE Identification Book and ‘Quick Cards’</i> .....	10
<i>Task 3 - Whale ID Software - Cybertracker</i> .....	10
<i>Task 5 - Data Management Analysis and Reporting</i> .....	11
<i>Task 6 - WHALEFORCE Burgee</i> .....	11
<i>Task 7 - Travel, Training and Promotion</i> .....	12
<i>Task 8 - Program Management</i> .....	13
<i>Budgeted and Timelines</i> .....	14
<i>Program Sustainability</i> .....	15
<i>Past WHALEFORCE Supporters</i> .....	15
<i>Present Needs</i> .....	15
<i>Funding Applications to Date</i> .....	15

---

## **The Proponent**

Cochrane Ecological Institute – Cochrane Wildlife Reserve Society (CEI)  
P.O. Box 484  
Cochrane, Alberta  
Canada T0L 0W0  
Phone (403) 932-5632  
FAX (403) 932-6303  
Email – [cei@nucleus.com](mailto:cei@nucleus.com)  
Web Site – [www.ceinst.org](http://www.ceinst.org)  
Year founded: 1971

Contact person: Clio Smeeton, President

### **OPERATING PERMITS**

Registered charity: No. 0916387 – 54  
Business No. 13362 9097 RR0001  
Alberta Society Corporate Access No. 5050 75713  
M.D. of Rocky View Permit: No. #03-09-67  
Wildlife Rehabilitation Permit: No. 2908 GP  
Avicultural Permit: WPA012  
Special Salvage Permit: #16  
Fish Culture Permit: No. 2539/00/R1

### **LIST OF OFFICERS AND DIRECTORS OF DIRECTORS**

Smeeton, Clio,	P.O.Box 484, Cochrane, Alberta, T4C 1A7, Canada	PRESIDENT
Weagle, Kenneth	P.O.Box 484, Cochrane, Alberta, T4C 1A7, Canada	DIRECTOR,
Matheson, Catriona,	P.O.Box 484, Cochrane, Alberta, T4C 1A7, Canada	DIRECTOR
Waters, Sian	14 Lindsay Gardes, Treckgar, Gwent NP22 4RP UK	Director Scientific Programs
Vogt, Sonamara	Höhtalstrasse 27, 5408 Ennetbaden, Switzerland	Director Education Programs
Bate, Roger DVM	<a href="#">Kent Veterinary Clinic</a> 6948 Pioneer Avenue RR 2, Agassiz, BC V0M 1A2	Director Veterinary Programs

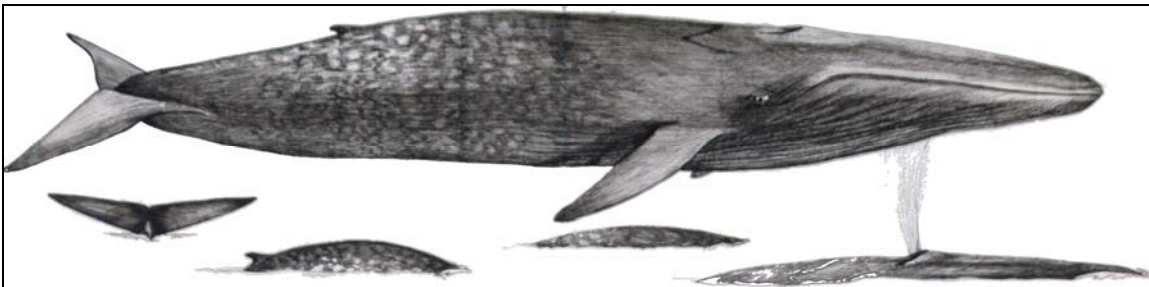
## **OBJECTIVE**

### **To Provide an Unbiased Estimate of World Cetacean Populations**

#### **WHY?**

What is needed, and does not exist, is a long-term, consistent cetacean survey of the sea resulting in an un-biased assessment of cetacean populations that will continue providing consistent data year after year. **WHALEFORCE** will answer that need; **WHALEFORCE** has the capability to provide long-term unbiased data on cetacean occurrence outside<sup>1</sup> the calving, breeding and feeding grounds.

**Scientific evidence proves there is no humane way to kill a whale** but the information provided to the International Whaling Commission, and upon which they base their decisions is largely flawed because of the way it has been obtained. The most powerful way, the only way, to influence the people and countries who continue to harvest cetaceans is to obtain an unbiased assessment of whale populations using a proven scientifically acceptable methodology and to involve the people of coastal countries in collecting it.



---

<sup>1</sup> Cetacean population assessments are obtained by scientific research both by the pro whaling and anti whaling bodies (I can give you references for all this if needed). These assessments are based upon information provided by the whale fishery, scientists associated with the fishery, and field studies unassociated with the whale fishery, and both are undertaken in areas where the different whale species congregate for various reasons (feed, sex, calving, etc.) numbers are then extrapolated from the numbers counted in feeding, breeding and calving grounds.

## The Concept

**WHALEFORCE** (founded by Clio Smeeton of the Cochrane Ecological Institute (CEI), in 1986) is designed to produce an unbiased cetacean (whales, dolphins, porpoises) population assessment. The methodology **WHALEFORCE** uses for cetacean identification is one developed for use by the public in the 1980's by the Nanaimo Biological Research Station, Canada (Orca Program) and has proven, over the last 20 years, that the data on Orcas collected by interested amateurs has a solid scientific value.

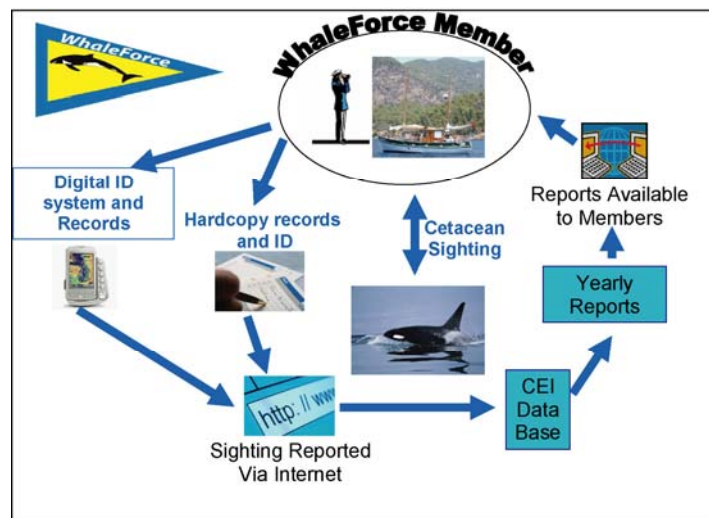
Data is collected by interested people crossing the same stretch of sea at the same time each year. Because most sailors find it hard to identify different cetacean species **WHALEFORCE** provides cetacean identification sheets especially designed for identifying cetaceans from yachts. I.D. sheets and situation and data entry sighting slips, are provided to yachtsmen/women participating in blue water rallies, off shore and coastal races, and people "*just messing about in boats*". This data is then transmitted to CEI where it is organized, stored and analyzed. To keep the programme sustainable there is a small charge to participants.

The concept is outlined in the schematic below.

Three components of the program require special mention:

- Members
- Training
- Whale Identification

These items are discussed in detail and followed by a program and work plan outline.



Schematic of the **WHALEFORCE** program.

## **The Critical Components**

### **1. WHALEFORCE Members**

**WHALEFORCE** is only as good as its members. The feature of today's yachting community is that it has literally thousands of motivated, interested and capable people cruising the oceans of the world. Many of these people are part of the 'Grey Revolution'. They are fit, well educated, reasonably well off, and most often looking for a worth while *cause* in which to participate.



It is this group of people that **WHALEFORCE** will recruit as their members.

**WHALEFORCE** will also involve the international and costal yacht racing and rally

community. Every year like minded yachtsmen join rallies which are basically organized cruises on specified routes. **WHALEFORCE** is already in discussions with Blue Water Rallies Limited for the inclusion of **WHALEFORCE** in the 2007-2009 Circumnavigation Rally. This will mean that the same group of yachts will travel completely around the world and be making consistent cetacean observations for the **WHALEFORCE** data base. We are also pursuing participation in rallies in the Atlantic, Pacific and southern oceans as well as races in the Atlantic and Pacific.

Yacht Marinas will also be pursued to promote membership in **WHALEFORCE**. This will be done by the Ambassador boats.

Members will receive a Training Package, access to the data entry and reporting on the **WHALEFORCE** Web Page. If the members are part of a Rally or Race a CEI organizer will visit the start of the event where a training session will be provided.

Members will also have access to Software developed by CEI for Whale Identification. This software will be based on CyberTracker (<http://www.cybertracker.co.za/index.html>). CEI has been actively using this innovative software for over four years.

To identify members of their **WHALEFORCE** yacht will fly the **WHALEFORCE** Burgee. This is anticipated to provide significant promotion to the project as a whole and be one of the main ways of recruiting new members.



Finally the new members will sustain the project

## 2. Member Training

One criticism of layman driven monitoring programs is that they are not trained to identify the target species. Research at the Nanaimo Biological Research Station, Nanaimo, BC, Canada has indicated that this may not be a significant deterrent to the success of this type of project. In addition, for decades the main source of bird censusing in the western world has been the use of bird counts which are preformed by lay observers. **WHALEFORCE** will increase the credibility of the program by providing Training packages to all members and by providing training seminars at major participating events and clubs.

Clio Smeeton has over the past 20 years been developing a book on the identification of whales of the world that is specifically geared to yachtsmen/women. It is anticipated that this book will be completed in the ramp up phase (2007-2008) of this program. The book will be provided as part of the training package to Members. In addition there will be identification 'Quick Cards' specific to the oceans of the world. These 'Quick Cards' have already been developed for the Atlantic and Pacific oceans but will be revised and updated under this program. This is one of the major expenses for the program.

The Sightings Forms for the data have also been developed in hard copy form. These must now be converted into a Web friendly form and made interactive with the web and email system so data can be reported easily to CEI. With the expansion of the Web and email in the last decade most all yachts now have web capable computers on board and nearly all marinas provide Wi-Fi internet connections free of charge. This makes this portion of the program relatively easy once the web pages have been developed.

The Training Seminars will be delivered at the start of races and rallies and in participating clubs and marinas. They will be structured over a day and include:

- **WHALEFORCE** theory.
- Cetacean identification
- Introduction to **WHALEFORCE** ID material
- Record Keeping
- Sighting Reporting
- CEI Reporting to Members
- Behaviour around cetaceans

Traveling to the sites will be a major expense for **WHALEFORCE** in the first years but will provide more credibility to the program through the collection of better data. The start of international races and rallies are also media friendly event. Having a **WHALEFORCE** representative at the starts to talk to the media will highlight the program as well.

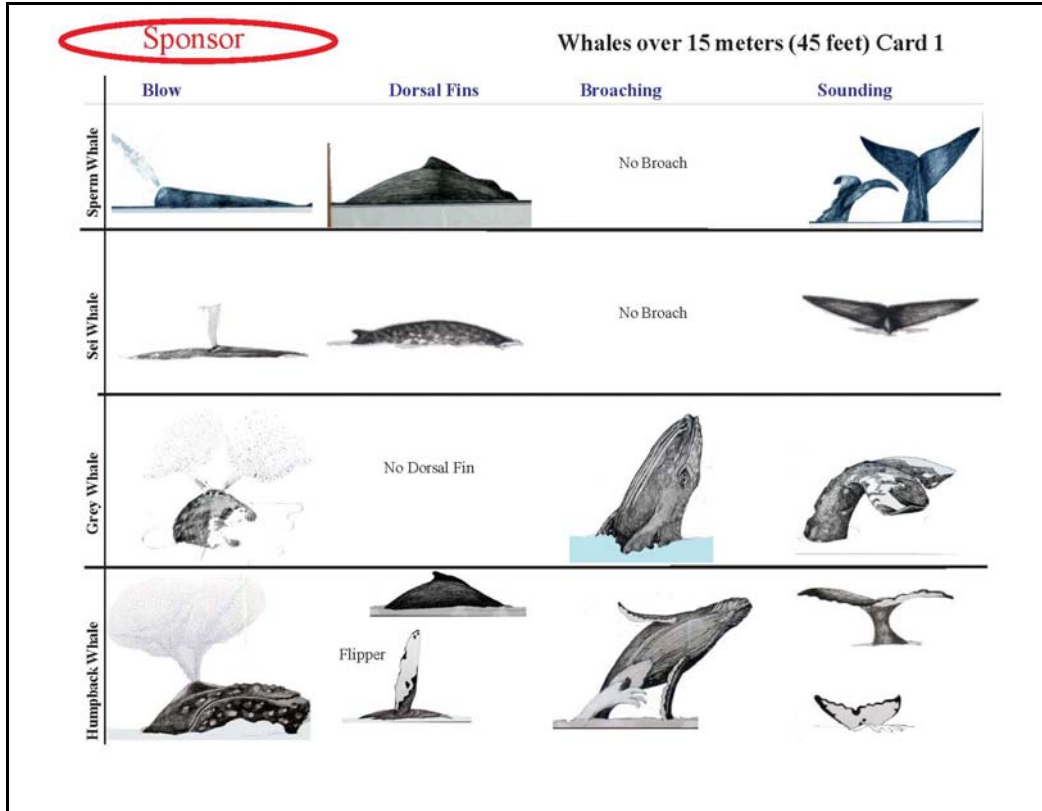
### 3. Whale Identification and CyberTracker

As mentioned above a book for the identification of whales of the world is in preparation for **WHALEFORCE**. In addition there will be the production of ‘Quick Cards’ to assist in identification from the deck of a yacht.



**The Book** – The art work and a most all of the research for the Identification Book has been completed for this project. What remains is to finish the research and proceed to set up publishing. The book will approach identification based on what will be seen from the deck of a yacht with emphasis on ‘blows’, behaviour, fins, colour, distinguished markings, etc.

The book will be supplemented with a series of ‘Quick Cards’ specific to oceans of the world. When WHALEFORCE was first established the on board identification was assisted by a series of identification sheets sponsored by Canadian Airlines. There were, for example, five sheets of two sided 11”x17” paper for the cetaceans of the Atlantic. It was found that these were not a suitable format for yachts so this version will be printed on waterproof ‘quick cards’ with four species per card. A sample card is shown below. There will be approximately 10 cards to the set. The front of the card will contain pictures of the whales and the back descriptions of features of the four species on the front plus range maps.



Sample 'Quick Cards'

**Whale Identification Software** – Over the past four years CEI has been using Cybertracker software (<http://www.cybertracker.co.za/>) on many of their terrestrial projects. This software, which is programmable, can be used to develop an intuitive identification system for cetaceans based on the features that you commonly see from the deck of a yacht. The software when used on a computer system linked to a GPS receiver (desktop, laptop or PAD) can also record and automatically add observations to a data base that can then be downloaded directly to the CEI global database for sightings.

CEI will use the information and research from the **WHALEFORCE** book and 'Quick Cards' to develop this identification software. The fact that a high percentage of our member yachts will have a laptop on board will make this a highly attractive option for filling out the sighting cards and then transferring the sighting data to CEI.



## **Work Plan**

### ***Task 1 - Internet Link to CEI***

This task will include the following activities

- Development of the **WHALEFORCE** web site.
- Development of the interactive email and web sighting reporting system
- Development of the Access system controlled through user ID and password assigned to **WHALEFORCE** members
- Development of hard copy sighting sheet compatible with sighting data base

The task will be completed by Noriko Pickell. Noriko has a B.Sc. in IT and GIS and a complete familiarity with the CyberTracker Software and web page development. She did her practicum for her B.Sc. at CEI while developing and working on a habitat and endangered species reporting system for the Blood Tribe Swift Fox program.

Estimated Cost - \$CND 10,000

### ***Task 2 - WHALE Identification Book and 'Quick Cards'***

The art work for this task is approximately 90% complete. The deliverables will be the book and a minimum of two sets of 'Quick Cards'. The two components of the task are closely linked but the book will take considerably longer to get set up and printed than the 'Quick Cards'. The priority in the task will therefore be the **WHALEFORCE** 'Quick Cards'.

The deliverable for the task will be 3000 sets of the 'Quick Cards' and 3000 copies of the **WHALEFORCE** Identification book.

This work will be done by and/or under the supervision of Clio Smeeton the founder of **WHALEFORCE**.

Estimated Cost - \$CND 50,000

### ***Task 3 - Whale ID Software - Cybertracker***

The components for this software are already in place. The work that remains for this task is:

- Writing the sequences for the software
- Testing it on the two platforms (laptop/desktop computer and PAD)
- Writing the User's Manual

This work will be done by Noriko Pickell (see Task 1).

Estimated Cost - \$CND 20,000

Task 4 - Data Base Development

The data base to store **WHALEFORCE** data will be developed and maintained by CEI. It will be interactive with all reporting from the internet (see Task 1) which will substantially reduce the labour costs for data entry. It is still anticipated that there will be hard copy data received and this will be entered manually by CEI staff.

The task will be done by Noriko Pickell.

Estimated Cost - \$CND 5,000

#### ***Task 5 - Data Management Analysis and Reporting***

All data entries, whether received via the internet or by hard copy will be filtered through a QC/QA system to ensure their accuracy. This will also be managed by the CEI staff. The data base will be housed on an in-house CEI computer in Cochrane, Alberta, Canada. The computer will be backed up onto a segregated mass device on a daily basis.

Population estimates will be developed using the distance theory (<http://www.ruwpa.st-and.ac.uk/distance/>). These will probably only begin during year 2 or 3 of this cycle of **WHALEFORCE**.

The reporting of data back to members will be done through a quarterly electronic newsletter and the internet. This will include sightings by species and ocean and population estimates once the data base is large enough to allow for the estimates. The distribution of the data will have a time off-set of a minimum of 12 months to prevent any use of the data for whale harvesting purposes.

Raw data will only be available to CEI and on special request to **WHALEFORCE** members and funders.

The data analysis and reporting will be done by Ken Weagle. Ken has had over 40 years experience in environmental data management and analysis. He is currently a director of CEI.

Estimated Cost - \$CND 20,000

#### ***Task 6 - WHALEFORCE Burgee***

This will be the distinguishing factor for **WHALEFORCE** Participants. They will all fly our very distinctive burgee (signal flag). These are considered badges of honour by yachts and often represent their club or past maritime affiliation. The **WHALEFORCE** burgee has been designed and a small number ordered for promotional and sponsorship purposes. It is anticipated that the final version will also carry the logo of **WHALEFORCE's** major sponsor.

The initial order for the burgee will be 1,000.

Estimated Cost - \$CND 9,000



The **WHALEFORCE** Burgee

### ***Task 7 - Travel, Training and Promotion***

The training portion of the program is outlined on page 7 of this proposal. It is anticipated that at minimum of five events per year will be visited and training sessions conducted.

Additional promotional travel will be involved with participating marinas and yacht clubs and it is anticipated that this will involve a minimum of four locations per year.

Promotion will also be conducted through articles in the numerous yachting magazines. These articles are usually free and could be a revenue generator. The articles will be written by CEI staff who has a solid record of published articles in these publications. CEI has already contacted several publishers to inquire about articles.

The concept of Ambassador Boats will also be used to promote **WHALEFORCE**. The ambassadors will be classic yachts that on their own attract significant attention wherever they go. At present two ambassadors are in place. The first is the CEI research vessel **PESCADOU**. **PESCADOU** is presently situated in Turkey and will be moving to European waters in the winter of 2007-2008.

The second ambassador is **Tai Mo Shan** (<http://www.tai-mo-shan.co.uk/>). Tai Mo Shan will promote **WHALEFORCE** in the Mediterranean where she is presently based.

Flying the **WHALEFORCE** burgee they will promote the program in all ports they enter and will be used as a base for the training seminars when the start of events are in their immediate area.

Estimated Cost - \$CND 35,000

### **Task 8 - Program Management**

**WHALEFORCE** will be managed by CEI. Management tasks will include:

- Completing the above tasks
- Managing the funding
- Managing new and existing memberships
- Data management (data entry and QA/QC)
- Reporting
- Newsletters
- General Correspondence

CEI has a fully functional operational centre based in Cochrane, Alberta, Canada. This facility includes an Interpretative Centre, audio-visual equipment, networked computer equipment, high speed internet connections, and part time and volunteer staff. The operation cost for the facilities is provided for though several social-initiatives also conducted out of the CEI facility. These facilities and equipment will be used to manage **WHALEFORCE**.

CEI also owns a research vessel **PESCADOU**. The vessel is set up to accommodate a crew and two researchers and is capable of sailing in all the oceans of the world. **PESCADOU** will be used as an ambassador boat. She is also equipped with the latest in computing and communications equipment and will be the centre for training and promotion in European waters.

The cost of the facilities and the use of **PESCADOU** will be CEI's in kind contribution to **WHALEFORCE**. The costs of other ambassador boats including **Tai Mo Shan** will also be an in-kind contribution to the program.

**WHALEFORCE** will increase the staff needs for CEI and this will be handled by the addition of a part time staff member dedicated to **WHALEFORCE**. After the first year of operation it is anticipated that this cost will be covered by the memberships. For the first year however it will have to be covered under the program donations.

Estimated Cost \$CND 25,000.

### **Budgeted and Timelines**

<b>Task</b>	<b>Description</b>	<b>Timeline</b>	<b>Cost (CND)</b>
1	Internet Link to CEI	Fall of 2007	\$10,000
2	WHALE Identification Book and 'Quick Cards'	Fall of 2007 ('Quick Cards') to Spring of 2008 (Book)	\$50,000
3	Whale ID Software – Cybertracker	Winter 2008	\$20,000
4	Data Base Development	Fall 2007	\$5,000
5	Data Management Analysis and Reporting	Annually 2007 to 2011	\$20,000
6	<b>WHALEFORCE</b> Burgee	September 2007	\$9,000
7	Travel, Training and Promotion	Sept 2007 to 2011	\$35,000
8	Program Management	Sept 2007 to 2011	\$25,000.
<b>Total Estimate</b>			<b>\$174,000.00</b>

**WHALEFORCE** began in 1986. CEI is now in the process of revitalizing the program and bringing it into the 21<sup>st</sup> century. The activities on our new **WHALEFORCE** program began in the spring of 2006 when CEI acquired the Research vessel **PESCADOU**. The preparation of the project revitalization proposal was completed in August 2007 and our search for sponsors began during the summer of 2007. The other critical dates in the program are outlined above.

The first rally where a **WHALEFORCE** Training session is to be presented is hoped to be in October 2007 in Gibraltar, if funding is in place.

This phase of **WHALEFORCE** will run for a five year period. At that point it is felt necessary to have a review of the progress of the program and a complete update of the material.

It is anticipated that the funds solicited with this proposal will be used in the first of the period and that after the major efforts are completed the program will be self sustaining through the memberships.

## ***Program Sustainability***

- Initial Costs through solicited support
- Initial Business Plan 1 year setup and 5 year initial phase
- Memberships cost \$CND 50
- Yearly maintenance cost estimated @ \$25,000
- Required memberships 500 yachts/year
- New members acquired through articles, continued promotion and self promotion

## ***Past WHALEFORCE Supporters***

- Canadian Airlines
- Atlantic One and Two Star Races
- Individual Yacht Owners
- Tall Ships

## ***Present Needs***

- Sponsor for Membership Packages
- Sighting sheets
- Identification Cards
- Species Descriptions
- Sponsor for Data Base and Internet Site
- Sponsor for Software Development and Setup
- Startup funding for promotion (travel to races and clubs, presentations, shows, advertisements in magazines, etc)

## ***Funding Applications to Date***

- West Marine
- Raymarine
- Binnacle
- Garmin
- WSPA
- IFAW