CHAPTER 4
GLOBAL ANALYSIS OF THE PERT SUB-SEGMENT

4.1 Introduction
Cases of volunteer tourism where volunteers contribute both labour and dollars to environmental field research were the focus of this research. An examination of volunteer tourism was undertaken to assess the scope and extent that these cases could be differentiated from other similar types of volunteer tourism operating in the market. This chapter examines the distinguishing market features, develops a definition of PERT and coins the term 'participatory environmental research tourism', PERT, to describe the sub-segment. The identification of the characteristics of the sub-segment provides answers to the research question posed in Section 2.10.1.

The definition of PERT was developed in tandem with a global search that involved locating and identifying various organisations operating in the area, analysing their similarities and differences and then determining useful and legitimate characteristics that distinguish the PERT sub-segment from other types of volunteer tourism. This process was iterative approach, described in Section 4.2.

Despite the definitional development and global search being conducted concurrently, the results of this process are presented separately below for clarity. Section 4.3 presents the definition and factors characterising the PERT sub-segment. Information gathered during the search is then used to summarise the historical growth of the sub-segment in Section 4.4. Section 4.5 presents the indicative data gathered during the global search and describes the growth rate, size of the sub-segment, focus of trips, locations, costs, headquarters, regional differences, participant profiles, structural composition, organisational goals and reasons people join, and changes over time in the sub-segment. Section 4.6 evaluates these results with respect to market segmentation theory. A chapter summary is presented in Section 4.7.
4.2. Method

This section of the research aimed to identify organisations and trips within the PERT sub-segment. Gathering data on the sub-segment was problematic as it was relatively new and there was no widespread agreement on terminology academically, by operators, or in the marketplace. Differences between terms such as volunteer vacations, conservation holidays and working holidays were discussed in Chapter 2, as well as the different interpretations concerning the terms ‘tourist’ and ‘volunteer’. A search based on one set of terms would have only borne partial results, so a wide search process was necessary.

Other researchers had noted identification problems in specialist areas with Higginbottom et al., (2001b:18) stating wildlife tourism data ‘may well under represent certain specialized types such as bird watching, hunting, fishing, mobile wildlife exhibitors or conservation or vacation holidays as they advertise or sell through very specialized channels’. The use of specialised communication channels was also considered a distinguishing feature of special interest tourism (Hall & Weiler, 1992:8). The difficulty in identifying organisations to determine the PERT sub-segment’s characteristics was verified by industry comments from within volunteer vacations such as the Program Manager for Smithsonian Research Expedition who stated the program, ‘... is an idea that sells itself. We don't buy paid advertisements’ (in Speer, 1994:22).

Extensive Internet searches were done including cross-checking with volunteering websites that link potential volunteers with projects. Significant amounts of published advertised material, grey literature and popular press publications including books designed to help the volunteer vacationer (Ausenda, 1998; McMillon, 1999; Ocko, 1990; Tovey, 1993), magazines (such as Australian Geographic, BBC Wildlife and Transitions Abroad) and newsletters or magazines of specific associations (such as Sierra Club, Audubon) were reviewed. The search often required clarification of details and letters, email or telephone discussions were held with organisation staff, individuals, or
researchers to ascertain specific aspects of trips and in these cases a 'snowball' approach was used to identify other organisations. Care was taken to avoid duplication from multiple listings.

Although the Internet contains limitations regarding user profiles, studies in volunteering (McCurley, 2001) and tourism (Schonland & Williams, 1996; Weber & Roehl, 1999) showed the Internet was becoming widely used for the dissemination of information in these areas and could be a useful research tool (Buhalis, 2001; Stergiou & Airey, 2003). Clients generally require substantial amounts of information about a volunteer trip before purchasing and the Internet is increasingly used as a cost effective and timely distribution medium. Evidence also suggested that wildlife tourists (with which PERT overlaps) were more likely to use the Internet as a source of information compared with other tourists (Moscardo et al., 2001b). Market research undertaken in the USA and Canada (Lang Research, 2001) surveying almost 12,000 respondents, showed people who had taken a hands-on learning experience holiday (volunteer tourism, cooking classes, language immersion) used previous knowledge, word of mouth from friends and the internet as the first three sources of information on trips, and newspaper and magazine articles was ranked fourth as a source. The profiles of participants on PERT trips (see Appendix 1) are complementary to profiles of Internet users, and those with high income and education are more likely to be Internet users (Alton & Bennett, 1998:201; Bonn, Leslie Furr & Susskind, 1999), again helping verify the validity of this search technique.

The search technique adopted was more likely to have located international organisations, larger groups that advertised, and groups that had been operating for at least several years. This study specifically aimed to identify organisations that advertised publicly, and larger programs were statistically more important to identify in terms of gauging the size of the market. However, the aim of this work was also to gain an understanding of the range and styles of operations. Small, or newly functioning operations, may differ in some ways and so operations within Australia were examined in more detail.
Australia was chosen for a more detailed study area for several reasons. Logistically it was the most appropriate area, and the most feasible for using personal networks to locate small operations and discuss issues. It is also a country where environmental issues are considered important publicly and politically, is innovative in developing programs for environmental protection, and has a relatively small population and yet covers a large area, making the use of these types of trips potentially appropriate. Specific operations are likely to be influenced by regulatory regimes and political factors, so some aspects of the factors influencing small or newly functioning operations are likely to alter globally.

This section of the research examining the global extent of PERT was undertaken from August to December 2001. The characteristics identifying the organisations are described in the next section. Over 170 different organisations were analysed and 39 (listed in Appendix 12) were classed as within the final definition developed.

4.3 Development of a Definition

This study did not aim to prove PERT is a legitimate product market or valid sub-segment of the wider tourism market, but asserts it is an emerging area and aimed to identify the characteristics which define it. An *a priori* approach within market segmentation (see Chapter 2.2) was used to develop a definition for PERT. An activities-based perspective descriptively examining what actually happens, rather than a normative (or value-based approach) looking at what should happen (Stewart & Sekartjakrarini, 1994), was utilised. The importance of using an *a priori* approach has been argued in special interest tourism where 'it is important to recognize that commercial success may be dependent on distinguishing between speciality groups established through a common activity or focus and groups with an interest in a particular destination or setting' (Hall & Weiler, 1992:7). While sometimes a single criterion can be used to identify a segment, often a number of criteria are needed, creating a segmentation base (Dolnicar, 2005), and both supply and demand-oriented factors were used for this research. Supply factors relate to products requiring a similar
manufacturing or development process. Demand factors join together individual products seen as substitutes by consumers or those that are used to obtain similar patterns of benefits (Day et al., 1979). The trip characteristics used to define the PERT sub-segment have been outlined by Ellis (2003a; 2003b) and are discussed next.

4.3.1 Travel
To provide comparability with tourism statistics (discussed in Chapter 2) this definition required participants to travel at least 40 km one-way away from their home overnight or longer. This characteristic was used to help distinguish between ‘volunteering tourist’ and ‘local volunteer’. Local community volunteering in the environmental field is widespread and while local volunteers could sometimes be classed as ‘excursionists’ or ‘day-trippers’ they generally do not consider themselves as taking a trip or holiday. This clarification was necessary as ‘locals’ and ‘tourists’ may have different motivations for participating, varying capacity to regularly undertake the tasks and the outcomes such as stewardship may alter.

Using ‘travel’ as a defining characteristic is problematic where, for instance, a local bird-watching group participates in a state-wide survey. Some members may choose a site close to home, while others may decide to take a weekend trip away to a good bird-watching site and collect data for the same survey but travel a considerable distance (>40 km) and stay in a local hotel. The international Reef Check program demonstrated a similar issue. Some scuba divers live close to a coral reef and participated by collecting data on a dive after work. Others flew from the United States to Indonesia to join a special two-week cruise to collect data. From a scientist’s point of view, the participant’s origin was irrelevant but for this research it was important. During the search other definitional characteristics of the PERT sub-segment often helped determine whether a trip that appeared to be on the boundary of this characteristic, was considered within the PERT sub-segment.
4.3.2 Participation

The participant must have been active in a hands-on capacity and not simply have visited the site and watched scientists or conservators at work, or made a donation at a visited site. This distinction is fairly clear and delineates this type of trip from educational trips that have become popular. For instance, Oceanic Society Expeditions ran educational natural history trips led by experts to various sites that were outside the PERT sub-segment, but also ran hands-on research trips that were included. It is not unusual for a tourism operator or other organisation to run a number of different packaged trips aiming at various consumer segments, and in these cases, only the trips that were within the PERT definition were included in this dataset.

The level of participation was a more difficult area to assess. For instance, a whale watching tourism operator may collect daily data for scientists, recording the number and species of whales seen and activity levels. But on a short trip, accompanying tourists were unlikely to have been trained in protocols regarding the recording of information and may have helped spot whales, but were not active in any aspect of the research. In contrast, other trips trained and actively involved tourists in cetacean research. The distinguishing features were the training given and sufficient time to implement the training and help with field work. A one week minimum was used to help distinguish between short-term trips with no training component and no participation in research by unskilled volunteers, short-term trips using already skilled volunteers (discussed further in 4.3.4), and PERT-style trips that allowed sufficient time for training and active involvement in the data collection by unskilled participants.

4.3.3 Ecological field research

Animal, plant or ecologically-oriented field research work may include surveying, monitoring or research. For the purposes of this work, these concepts were grouped together and termed ‘ecological field research’. Hands-on conservation work such as track maintenance, weed clearing, clean-ups, or habitat restoration may involve tourists (such as visitor programs at the Grand Canyon, USA), but were not included within this definition as the key goal was not collation of field data or research.
Within the wider field of volunteer tourism, many other types of volunteering exist such as fossil-digs, historical preservation and community development-oriented trips. Within tourism, segmentation has divided the market based on activity (such as bird watching versus whale watching) and an activities-based approach was followed here within volunteer tourism. By only including ecologically-oriented field research a more homogeneous product from both the supply and demand viewpoint was created. On the supply side considerations of the validity of volunteer data concerning flora and fauna research and consequential management requirements were considered significantly different from areas such as fossil-digs, and community development work. The factors influencing natural resource managers to enter into partnerships to provide PERT-style trips were also considered potentially different for ecological research. Volunteer tourism advertising material is often sub-divided based on research subject. Consequently, a definitional characteristic based on research subject was considered valid from a consumer viewpoint.

4.3.4 Public advertising for 'non-professional volunteers'

The literature review revealed volunteers have frequently been involved with scientific fieldwork, but this has often been based on personal networks where experts assembled a small team of acquaintances for a specific project. These trips were not advertised publicly, often did not contain the same elements of training (due to regular team work together) and were excluded from the PERT sub-segment. Current literature often blurs the distinction between the terms ‘volunteer’ and ‘non-specialist’ (Bleich, 1998; Darwall & Dulvy, 1996). From an organiser or researcher’s point of view, a ‘non-specialist’ requires training and supervision, a ‘volunteer’ may already be an expert in the field and is simply helping out in an unpaid role. This research focused on issues surrounding the use of ‘non-specialists’ and Bildstein (1998) used the term ‘non-professional volunteers’ to clarify this area.

The requirement for trips to be advertised publicly generally indicated no specific previous knowledge by the participant was required and so logistical and training issues
must be addressed. Specific advertised requests for volunteers such as those by Animals Asia Foundation for veterinarians were therefore excluded. Trips offered to a restricted group, such as within a conservation association, often brought volunteers with extensive local knowledge and skills to a project (Robin, 2001) allowing researchers to use these volunteers in more specialised ways. Because of this, these were excluded. However, associations such as Earthwatch Institute use membership for funding reasons and also advertise their trips broadly to the public. No previous knowledge from participants is required and so these types of trips were included.

4.3.5 Voluntary
The involvement of participants must have been in a voluntary capacity. Volunteer definitions were discussed in Section 2.3.2. Generally volunteers are unpaid but may be reimbursed for expenses (Dingle et al., 2001) but within the PERT sub-segment the volunteers did not have their expenses (such as food and accommodation) reimbursed. Instead, they often paid a premium and contributed directly to other costs besides their own transport and field costs. This characteristic helped separate the PERT sub-segment from other types of voluntary work. It also excluded student trips or ‘college credit’ type trips and other types of coerced volunteering (Stebbins, 1996a).

4.3.6 Length of time spent volunteering
Advertising and volunteer information confirmed that both organisations and participants viewed short and long-term trips differently. The volunteer vacation sub-segment contained trips of varying lengths and the work output to training ratio was usually greater with longer trips. There appeared to be motivational differences between the short-term holiday-like segment and long-term volunteers (Ausenda, 2001). Short-term trips were mostly undertaken during annual leave by employed people. These trips tended to be more expensive, involved a higher training to output ratio, and suited quick and simple training and tasks. Organisations made a distinction based on the duration of volunteering. For instance, some organisations advertised no long-term volunteers and preferred volunteer turn-over to minimise personality problems and achieve other goals such as awareness-raising of the public. Other groups clearly stated no short-term
volunteers and had a minimum stay level such as three months or two years. Callanan and Thomas (2005) used a cut-off period of four weeks for one of their divisions within volunteer tourism and the definition developed here uses a maximum limit of one month, recognising its implications for both participants and organisers.

4.3.7 Financial contribution to the project

The level of financial contribution to a project by a participant varied significantly. Examination of this area was difficult due to aspects being confidential or unclear but the global search revealed a continuum between organisations fully paying all volunteer costs, to partial subsidisation, to neutral costs where participants covered their own costs, to trips where volunteers paid all their own costs and also financially helped support additional expedition costs. Only the last type of volunteering listed is included here as the additional financial contribution is a crucial factor in the decision-making surrounding researcher involvement in this type of volunteer tourism and hence supply of trips. The requirement of a financial contribution to the project, in addition to covering their own food and accommodation costs, excluded most local volunteering examples. It also excluded some club activities as this research focussed on trips organised by a central operation or organisation that determined the overall costs and used this to calculate an individual participant’s cost for a trip.

4.3.8 'Fixed date' trips

Both expeditionary trips and those based at a single site can be regarded as PERT-style trips. The impetus for single site PERT-style trips appears to have grown from field research stations looking to boost budgets and activities, and ecolodges aiming to improve their image of environmental sustainability and counter the much-publicised negative impacts of ecotourism. Certain countries such as Costa Rica, Panama (Ayala, 1997) and Belize have actively developed participant activities at field research stations and ecolodges. A range of operational styles existed from sites with permanent researchers who conducted natural history tours for visitors (but no research was done by the visitors), to lodges where no tourists were permitted, but paying volunteers who
actively contributed to the output of the station were accepted. Volunteers may support regular monitoring work or be involved in seasonal, annual or one-off research. For instance, a trip may have involved long-term radio tracking of released animals (such as wolves) to determine their range and behaviour, surveyed seasonal bird migrations or turtle nesting, or have been a one-off pit-trapping program to identify invertebrates in a specific location. The diversity of approaches was a reflection of the varying goals of the organisations and research needs.

On close examination, the distinction between research expeditions and single site trips was not as useful as the distinction between ‘fixed date’ trips and ‘flexible date’ trips. Expeditions and some field research stations advertised trips with set start and finish dates and are termed here ‘fixed date’ trips. ‘Flexible date’ trips where volunteers can nominate their own arrival and departure dates were more commonly associated with ecolodges or field research stations. The types of training and operational and logistical aspects varied significantly between the two.

4.3.9 Final PERT definition
The distinguishing characteristics of trips within the PERT sub-segment were:
- travel;
- active participation by members (hands-on role);
- ecological field research or data collection;
- advertised publicly;
- volunteers used;
- short-term in nature;
- financially supported the research project; and
- a ‘fixed date’ trip.

The development of the definition described above concentrated on examining the characteristics that distinguished the PERT sub-segment from other closely related types of trips. Some determining factors were quite clear, but the above discussion focussed on areas that required clarification. Market segments are not possible to explicitly define
(Day et al., 1979) and within tourism 'products offered to the different market segments may have certain commonalities' (Hall & Weiler, 1992:7) so boundary problems do not necessarily invalidate the definition and this was discussed further in Section 2.2. Callanan and Thomas’s (2005) subsequent work examined one website and examined the range of volunteer tourism projects offered (mostly to a United Kingdom market). Their analysis also concluded that the volunteer tourism market could be subdivided according to aspects such as the duration of a trip (they used a four week period to define the shortest category), the extent of involvement, the prior skills and qualifications required, and the extent the focus was on self-development or altruism. Despite this, they did not attempt to define specific sub-segments within the volunteer tourism market.

Rather than further validating the sub-segment as a distinct product market, the aim of this research was to determine the aspects of the PERT sub-segment that characterised it within the market place. By examining these, a working definition was developed that was then applied to the market place to identify those organisations and specific trips that were within the definition. Section 4.4 uses this information to describe the PERT sub-segment and reveal some of the factors affecting it. These defining characteristics were examined in more detail in Chapter 5 and several were slightly modified (see Section 5.5).

4.4. Growth and Characteristics of PERT

The defining characteristics developed and discussed in Section 4.3 were used to globally identify the organisations and trips within the PERT sub-segment. Information on the identified organisations was used in the following sections to describe the growth and characteristics of the sub-segment and place the second stage case study research (described in Chapters 6, 7 and 8) in context. It also helped answer the need for further research, recognised in Section 2.8.1, calling for a compendium of organisations within the area and for an understanding of the characteristics, the size, the variety of models and approaches and types of participants within the PERT sub-segment.
4.4.1 Development of PERT-style trips

Holidays containing some of the defining characteristics of PERT have been present for many years and Chapter 2 outlined some of the overlapping developments in wildlife tourism, ecotourism, volunteering and specifically environmental volunteering and volunteer tourism, which the PERT sub-segment appears to have developed from. For instance, current organisations operating in the PERT sub-segment include the Sierra Club which was founded in 1892. It started running service trips in 1958 but the financial component (described in Section 4.3.7) appeared later. The Caribbean Conservation Corps started in 1959 using volunteers to assist with turtle nest protection although the exact style of their early trips is unclear.

Most early operations seem to have operated more broadly than the defining characteristics of the PERT sub-segment and it was not until the late 1960s that organisations specifically focussing on programs where paying volunteers were teamed with scientists who needed funds and resources for a specific project started to emerge. Paul Bush, a Texan, started CEDAM International (now Conservation, Education, Diving, Awareness and Marine Research) in 1967 to support marine archaeology projects in Mexico. Their focus has since widened to international marine conservation projects and CEDAM provides the funding and the volunteer divers for marine research.

Earthwatch Institute is probably the best-known international organisation running short-term research-oriented volunteering trips and are seen as the ‘inventors’ of these types of trips. Earthwatch Institute grew out of an organisation set up by Citron, from the Smithsonian Institute in Washington DC, USA. Faced with cutbacks in science funding during the Nixon era, Citron sought an alternative and decided to go direct to the public for money, forming Educational Expeditions International in 1970. In Boston, at about the same time, a group of professors at the Massachusetts Institute of Technology was worrying about similar funding problems and sought the assistance of an entrepreneurial American investment banker. Their main priority was to discover where field workers could find the human and financial resources to fund their research. They decided to go
public, issued a prospectus and asked individuals to invest their time and money. These two groups joined forces, and in 1971 Educational Expeditions International became Earthwatch (Cherfas, 1992).

Earthwatch Institute, a non-profit organisation, had a mission to ‘promote sustainable conservation of our natural environments and cultural heritage by creating partnerships among scientists, the general public, educators, and businesses’ (Earthwatch Institute, 2002: no page). To achieve this, the Earthwatch Institute developed a structure where the donations of Earthwatch ‘volunteers’ contribute funds and the volunteers then join scientists in the field to assist with data collection and other research tasks. Earthwatch is the largest global organisation in the PERT sub-segment. At the time of this search, it had sponsored over 1180 research projects in 118 countries, contributing over US$44m to research and 6.2 million hours of fieldwork (Earthwatch Institute, n.d. [c]). Over 71% (110 of 154) of the research grants issued in 2001 by Earthwatch were within the PERT definition.

In the early 1970s, several other United States-based groups had similar ideas. Oceanic Society Expeditions started in 1972 (Oceanic Society Expeditions, 2001) and has concentrated on protecting marine wildlife through environmental education, scientific research and volunteering. It offers both educational ‘natural history’ tours as well as research expeditions.

The development of PERT-style trips in Europe and the United Kingdom appears to have started slightly later. Active in local volunteering, BTCV (originally the British Trust for Conservation Volunteers) gradually included conservation holidays. BTCV ran its first international trip (although it had conducted international exchange visits as early as 1969) with six conservation volunteers travelling to Iceland in 1984. In 1988, an International Development Officer was employed to develop working holidays in each European country. For the year 1999/2000, 3687 people travelled and volunteered on one of 62 International Holidays or the 386 UK Natural Breaks/Action Breaks operated.
during the year (BTCV, 2001: no page). For the last six months of 2001, 64% of their advertised international trips were within the PERT definition (BTCV, 2001: no page).

Gradually the concept of paying volunteers helping field researchers became more widely recognised both by scientists and the public and the number of groups offering these programs increased and programs were fine-tuned to the market. Media images such as Indiana Jones, Jacques Cousteau and others made ‘science sexy, glamorous and relatively easy looking and helped attract public interest’ (Ocko, 1990: 5-6). The popularity of certain species also helped and enabled some scientists to start their own organisations such as whale researchers who started Coastal Ecosystems Research Foundation (CERF). The researchers needed long-term funding because of the nature of their studies and wanted an administratively simpler and more flexible funding style than many structured grant programs allowed. The Foundation’s ability to attract paying volunteers has been enhanced by strong public support for their primary research subjects, cetaceans, and the development of the commercial whale watching industry worldwide appears to have facilitated the demand for cetacean-based volunteer tourism.

By the late 1980s, the concept of volunteer tourism and its possibilities were becoming better known and new organisations were emerging. The Italian Tethys Research Institute, started in 1986, focussed on cetacea in the Mediterranean, and was probably the first of the science-oriented volunteer holiday organisations in Continental Europe. Earthwatch Institute opened a European Office in Oxford, United Kingdom in the late 1980s.

4.4.2 Additional goals
Organisations focussing specifically on PERT were initially driven by a need for scientific funding, but it was recognised that this sub-segment could be a means of attaining a wider variety of goals. These goals often included conservation, public awareness and sometimes support for local communities. This exploration of new niches within a product market is characteristic of an evolving market segment. It may also
reflect organisation maturity as stability (and growth) can allow a focus on secondary goals.

Examples of organisations that have widened their goals include BTCV that originally developed its volunteering program as a means to achieve an environmental goal. Now, BTCV is heavily involved in many social inclusion aspects of environmental volunteering and works with under-represented groups in society such as new migrants, the unemployed, drug addicts and the elderly. BTCV also uses environmental volunteering to encourage personal development and lifelong learning in the community. The Earthwatch Institute also ran a three-year program in conjunction with the Ley Community looking at the value of environmental volunteering trips for the rehabilitation of drug and alcohol abusers (Small et al., 1999). Some organisations operating within the PERT sub-segment also run scholarship programs particularly for science teachers, students or young researchers from less developed countries to allow them to join trips. The Earthwatch Institute broadened its mission in 2003 to increase the focus on sustainable development and local communities and this is discussed further in Chapter 6.

4.4.3 Marketing refinements
Marketing was cited as one of the major problems for most organisations within the PERT sub-segment. New product markets, such as the PERT sub-segment, often do not have fully developed marketing links and profiles of potential consumers are not well known. Advertising for volunteers can add to the administrative workload for scientists. Offices in remote locations or with poor communication links frequently incur further administrative complications in resolving volunteer queries and bookings. Administrative requirements such as marketing, effectively answering prospective volunteer queries, and providing a streamlined booking system, are needed for an organisation to operate, but also may be viewed critically by prospective volunteers as funds are seen to be spent on marketing and administration rather than on field research.
Traditional tourism solutions such as using travel organisations or wholesalers are not well utilised. The issue of offering commissions to travel agents is contentious in an area where volunteers assume their money goes directly to the project they are supporting (Hintzke, 2000) and the linkages between travel agents and the PERT sub-segment are poor.

Within the PERT sub-segment, large organisations tend to sell or distribute direct to customers. Smaller organisations may do this, but many opt to use a distributor to minimise their own administrative load. Recognising the problems of small operations, a number of intermediary agencies specialising in this area (such as The Ecovolunteer Network) have developed to ease the process of matching volunteers with the right scientific project. There has also been a significant growth in books and websites on this topic. This provision of a range of choices is important as most organisations rely on volunteers properly reading the material and appropriately selecting a project they are physically and mentally capable of participating in and enthusiastic about contributing to the designated goals. The book ‘Volunteer Vacations’ (McMillon, 1999) was first written in 1987 and was in its eighth edition in 2003 and is a popular source of information for the Northern American market. The book ‘Green Volunteers’ (Ausenda, 1998) has been an important information source in Europe and the United Kingdom, and has the advantage of being linked with a website for frequent updating. It promotes smaller, often cheaper projects that do not have significant administrative resources for promotion and information dissemination. In addition, there are other books on green volunteering or travel books that include a section on volunteering (Ocko, 1990; Tovey, 1993) as well as magazines.

Websites specifically designed to link volunteers with appropriate volunteer vacations (McCurley, 2001) exist such as: www.volunteerinternational.org, www.globalvolunteers.com, www.volunteermatch.org, www.volunteersabroad.com, and www.volunteeramerica.com (that concentrates on volunteer opportunities in USA national parks). Government bodies and organisations also may list volunteer opportunities (such as National Oceanic and Atmospheric Administration [NOAA],

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www.csc.noaa.gov and geographic areas may also list volunteer opportunities such as the Florida Keys National Marine Sanctuary that includes within its mission the task of increasing community participation and so advertise both local and PERT-style volunteering. These types of websites include broader types of volunteering as well as those within the PERT sub-segment.

4.5. Global Characteristics of PERT

So far the definitional characteristics of the sub-segment have been outlined (Section 4.3) and the development and growth of the area (Section 4.4). These sections have started to reveal some of the characteristics of the market and the factors influencing it. This section examines the characteristics of organisations operating within the PERT sub-segment and describes the process used to gather data on the global sub-segment.

4.5.1 Method

During the process of gathering information to develop the definition described above, statistics were collected on the various organisations identified globally as conducting trips within the PERT sub-segment (listed in Appendix 12). The results indicated the size and additional characteristics of the PERT sub-segment. This section of the research was undertaken between August and December 2001 and provides a snapshot of the sub-segment at that time. The search covered a wide range of potential data including: total amount of money derived from volunteers per year; number of trips per year; volunteers per year; total people days spent on research; and number of scientific projects per year. Also, associated data such as the origin of participants, destination of trip, type of project, target market, year operations started, percentage of repeat participants, length of trip, the extent to which volunteering is only part of larger trip, maximum and minimum numbers per trip, single field site or expedition style, partnerships, memberships, number of scientists per trip, and presence or absence of a tour guide were collected where possible. Broader data were also important and the areas of interest included:

- the growth of the segment;
- any change in marketing or of profiles of participants over time; and
• difficulties in the sub-segment including the number of trips that failed, or had not run due to insufficient participants.

As expected, many of these data were not possible to collect for each organisation. The financial transparency of operations and the amount of available material on their operations varied widely. Some organisations printed detailed annual newsletters but others did not advertise their corporate structure, start-up date of the organisation, financial data or volunteer involvement levels. Published material such as annual reports, advertising material, membership newsletters and sometimes email contact were used to collect what was possible. Websites were useful and often contained mission statements, information on upcoming trips, background on an organisation's structure and past history. Analysis allowed some indicative information to be obtained.

Surveying organisations to obtain key information was considered. After discussions with six wholesalers or organisations to determine whether this may be a productive approach, it was not pursued. Some data were considered confidential and other data were not collated in a usable format (such as PERT-style volunteering may not be segregated from other volunteering or the number of volunteer days may not have been known). Assistance initially promised by organisations also altered after the tourism crisis created by 11 September 2001, and for Australian companies, the concurrent collapse of a major airline, Ansett, significantly altered staff workloads.

Instead, the most useful statistics that could be derived from secondary or published material were collated. These are summarised below. The search was conducted from August to December 2001 and included trips advertised during that period. For most companies this was an annual (calendar or financial year) tally, but some organisations only advertised upcoming trips over a shorter period. No trip data for a period greater than a year was included for any company.
4.5.2 Growth of the PERT sub-segment

The growth and development of the sub-segment was discussed in Section 4.4.1. During the data collection the start date of organisations operating in 2001 were noted. Either the start-up date of a new organisation or the date an existing organisation started a specific package of programs within the PERT sub-segment was used. Figure 4.1 plots the start-up dates of organisations operating within the PERT sub-segment and shows there was an increase in the number of organisations starting operations in the late 1980s and early 1990s and this increase slowed slightly in the late 1990s. The search process used to obtain this data was conducted during the initial stages of this PhD and took several months. It was beyond the scope of this research to repeat the process again in 2004 to update the graph. Organisations that had previously operated within the PERT sub-segment but then stopped operations within PERT, could not usually be identified. The data used to construct Figure 4.1 only included those organisations operating within PERT during the search period (late 2001) and so potentially under-estimates the number of organisations operating in the PERT sub-segment in the past.

![Figure 4.1 Number of organisations starting operations of PERT-style trips](image)

Figure 4.1 Number of organisations starting operations of PERT-style trips
Some organisations altered their structure during the time period analysed. For instance, Tethys Research Institute ran a number of programs including the Adriatic Dolphin Project (ADP). Later the ADP became an independent organisation. In this situation the start date of Tethys Research Institute and the independent ADP were included. Where one intermediary agency such as Ecovolunteer Network, collectively sold a number of small projects and these did not retail themselves independently, only one start date (that of the Ecovolunteer Network) appeared in the data.

The significant growth that has occurred in this area was also shown by information on individual organisations. For instance, the Coastal Ecosystem Research Foundation started in Canada in 1993 and has grown from 'a $20,000/year one boat operation in 1994, to a $250,000/four boat operation by 2001 and now employ 11 crew in summer and four in winter' (Coastal Ecosystems Research Foundation, 2001a). Their research also expanded from an original focus on whales and dolphins to sub-tidal, intertidal and terrestrial work including tagging small amphibians.

Although the data in Figure 4.1 are only indicative, the growth in the late 1980s and early 1990s is supported by the existing literature (discussed in Section 4.4.1) that indicated the sub-segment started to expand in Europe and the United Kingdom at that time. The publication dates of books advocating these trips also support the identified growth period. Unsubstantiated data indicates growth may have started a little earlier as, through the 1970s and 1980s, 'more than 30,000 people have gone into the field, most of them in the 1980s when middlemen (sic) organizations (joining scientists and volunteer) reported exponential leaps in the number of people seeking environmental vacations' (Ocko, 1990:18). Unfortunately there was no comment on the technique used to collect these data.

4.5.3 Size of the PERT sub-segment

As it was not possible to gather data on the number of volunteer/days per year or the number of volunteers per organisation, the number of trips advertised per year was used to indicate size of the PERT sub-segment. However, a trip using 12 volunteers could not
be distinguished from a trip with only three. Sometimes minimum and maximum group sizes were advertised but this was not done consistently. Nor did the number of trips advertised indicate the number of actual trips run, as some may have been cancelled and other trips were advertised for a short period only. The number of trips within the PERT sub-segment identified during the research period of August-December 2001 was 887. This is likely to be an under-estimate, as not all organisations would have been identified during the search.

4.5.4 Trip focus

The 887 identified trips were classified according to their advertised focus. Where more than one species or subject was being studied during a trip, the key species (usually the first mentioned) was used as the classifier. If the study included multi-flora and fauna and it was not possible to distinguish a key species, the trip was classed as ‘ecology’. Turtles were separated from other reptiles due to their popularity.

The most popular area was ‘marine mammals’ representing 29% of all trips, followed by ‘terrestrial mammals’ 22%, ‘turtles’ 17%, ‘marine biology’ 11%, ‘birds’ 8%, ‘ecology’ 5%, ‘plants’ 2%, ‘reptiles’ 2%, ‘insects’ 2%, ‘freshwater fish’ 1% and ‘amphibians’ less than 1%.

Birds were lower than initially expected. The recent growth in avi-tourism discussed in Section 2.2.2) would indicate that bird research trips should be popular. Other research indicates amateurs have made a significant contribution to bird research (Robin, 2001) and volunteers are very active in bird surveying (Weston et al., 2003). Representation in this data set may be low however, as the focus of this research was on trips advertised publicly or aiming to attract the public. Most research-oriented bird-watching trips are advertised through bird associations to attract skilled volunteers and so were outside the scope of this study (as discussed in Section 4.3.4).
Another aspect of the definition that may have impacted the results is the length of the trip (limited to one month). Some types of wildlife research required significant training and these, and some remote sites, were likely to only be included in longer-term volunteer trips.

While the results are only indicative, as the dataset is not a global census, the data shows a distinct preference within this sub-segment for certain species or groups of animals. The reasons for this may be multi-faceted and impacted by both demand and supply. For instance, in the case of turtles, it could be concluded that turtle tagging is popular as many people like turtles and are concerned about their highly publicised drop in numbers. Certainly some species have captured the public’s imagination and are currently popular making marketing of trips easier. Turtles nest on beaches in warm climates and the volunteer work may not be too arduous and is mostly at night allowing participants free time during the day to relax or go sight-seeing, so holiday motivations may be relevant. However, supply factors also determine the types of trips offered and for turtle tagging these may include scientific concern about species decline, the promotion of tourism to diminish turtle egg poaching, the ability to quickly train volunteers in the tasks and protocols required, and the difficulties of funding long-term turtle tagging and monitoring programs through conventional short-term grant processes.

Similar aspects may be relevant in the popularity of cetacean research within the PERT sub-segment. In addition, from the supply side, as well as the need for many pairs of eyes, paying volunteers help offset boat costs. Demand also appears to be high as tourism data indicated the whale-watching sector has undergone a dramatic increase (Orams, 2000; Parsons & Rawles, 2003).

In contrast, the category 'marine biology' was principally composed of coral reef or marine ecological monitoring trips. Unlike turtle tagging or cetacean research, this type of work does not necessarily contain simple tasks for non-specialists. It requires considerable physical skill levels and an extensive knowledge base. However, due to the rapid depletion of coral reefs, the extensive geographic area, physiological problems of
long periods underwater, and the expense of charter boats, scientists have recognised they are not able to collect all the data they need. The high levels of public interest in scuba diving and snorkelling have contributed to the demand for trips of this type and scientists have developed appropriate protocols to allow volunteers to assist in data collection (as discussed in Section 2.4.3). The development of accepted protocols to ensure the validity of volunteer data is important. The current popularity of a particular type of trip may be due to the earlier existence of operations with established protocols and acceptance of tourist involvement (such as turtle tagging, whale watching, and coral reef monitoring). The existence of working examples for researchers in other parts of the world to adopt may have increased the occurrence of trips focussing on these research subjects. While anecdotal evidence suggests this may have occurred, it was not possible to measure the influence earlier examples may have had on the growth of the PERT sub-segment here.

The acceptance of the use of volunteers to assist with different types of research appears to be increasing. For instance, the Earthwatch Institute have gradually altered the focus of their trips. Most early programs (1973) involved 'stars and rocks', areas where volunteers could cause little damage (Shapera, 2000:242). By 1985, 49% (n=82) of the projects awarded research grants were within the PERT definition (Earthwatch Institute, no date [a]) and in 2001, 71% (110 of the 154 awarded projects) were within the PERT definition (Earthwatch Institute, 2001b) as the organisation recognised the interest and abilities of volunteers in wildlife and ecological areas.

The focus of trips may also be based on marketing issues as the trip subject needs to be sufficiently popular to ensure that a trip sells. Research on species preference in wildlife tourism revealed larger species considered attractive and intelligent were the three most important factors (Woods, 2000:33) for visitors. The ease of viewing and location of wildlife are also likely to be important. The term ‘charismatic megafauna’ has been used to describe attractive large animals and the positive emotional responses these evoke are considered to help sell trips (Megill, 2001b). The importance to volunteers of an emotive link with the research subject has been noted during trips. For instance, Russell
examining an Earthwatch orang-utan project stated 'it was impossible to overlook that many of these tourists saw the orangutan as a source of personal pleasure and even a form of entertainment' (Russell, 1995:165). Both industry and scientists are well aware of the problems in marketing worthwhile, but less popular or well-known subjects, but it is not clear to what extent these issues influenced the trip subjects within the PERT subsegment.

4.5.5 Location of trips

The locations of the identified trips were not evenly distributed. Central and South America accounted for 30% of all trips, USA/Canada 20%, Europe 17%, Australia/New Zealand and the Pacific 14%, Africa 13%, Asia 5% and the Middle East less than 1%. A brief analysis of the broader volunteer vacation market (Gazley, 2001) confirmed an under-representation of Asia, the Middle East and Africa. Trip location is likely to be due to a combination of factors, including the existing research locations of scientists attached to an organisation offering PERT trips, the ease of operations and logistics, perceived sellable destinations, locations that volunteers perceive need 'help' (such as a developing country), and sites containing attractive charismatic animals accessible for research.

The availability of these trips also depends on the goals of the natural resource manager and the balance made between utilising local people and paying volunteers who usually are from outside the area. These two groups are not necessarily mutually exclusive but each has different costs and benefits. Section 4.5.12 contains data on trip locations for 2003 and demonstrates the distribution can alter over time.

4.5.6 Trip costs

Daily trip costs were calculated to give an indication of the market each organisation was targeting. Trips were costed from the local point of departure and did not include international airfares to the location but were otherwise inclusive of food and accommodation, so were comparable between organisations. When one organisation ran multiple trips an average was taken to obtain a daily cost. The costs were all adjusted
into US dollars (the most commonly quoted currency) and grouped with the results in each category being low (US$25 per day or less) 3%, medium (US$26-50) 8%, medium-high (US$51-100) 31%, and high (over US$100 per day) 54%, with 5% unknown. Generally costs were not considered to be much different from a vacation to the same area although the living standards were lower quality and volunteers were participating in activities (working). Turner et al. (2001) considered working holidays as inexpensive, as the examples considered from the United Kingdom did not use working holidays as a method of fundraising, however, this research was broader and showed not all PERT-style trips could be considered inexpensive.

Long-term volunteering tends to be cheaper as the volunteer is generally able to make a more significant contribution over time and become more useful to the project. The cost of recruiting and training also declines. The Ecovolunteer Network recognised this process and adopted a decreasing contribution concept to volunteering where the longer a volunteer stayed, the less they paid per week. Broad (2001:135) explored the variations in costings as volunteers stayed longer, and noted the cost of long-term volunteering can be decreased to zero as an incentive to stay (Broad, 2001:136). Several others organisations also use a sliding scale of decreasing costs for volunteering over time.

4.5.7 Headquarters

Analysis of the location of headquarters helped demonstrate which countries were active in this sub-segment and 44% were in United States/Canada, 26% in the United Kingdom and Europe, 23% in Australia, 5% in Africa and 3% in Asia. Australia was likely to be over-represented due to the more intense search identifying smaller operators in Australia. The focus on English-speaking trips may have also affected these results. Despite this, the results reveal the dominance of the United States/Canada market.

By calculating the number of trips per headquarter location, a more accurate picture of the level of activity was determined. Sixty-one per cent of trips were organised from United States/Canada, 18% from the United Kingdom and Europe, 9% from Australia,
2% from Asia and 1% from Africa. For organisations with more than one office, such as Earthwatch (that has headquarters in the United States and offices in the United Kingdom, Japan and Australia), all trips were tallied to the head-office site (the United States). Anecdotal comments concerning environmental volunteer tourism regard the United States as the leader, probably due to their strong history in this area, population size and relative affluence. The United Kingdom was considered second and strongest in the youth market and after this it became less clear with a number of European countries, Canada, Australia and New Zealand all active.

4.5.8 Regional differences

Distinct regional differences existed. United States-based organisations tended to offer more expensive trips but there was an allowance of a tax exemption by the Internal Revenue Service. A tax deduction for travel expenses, including meals, lodging and the contribution to the field research program, could be made by participants who purchased a trip from a registered not-for-profit organisation provided there was no 'significant' element of personal pleasure, recreation or vacation in such travel (McCormally & Blum, 1990). Most USA-sold trips were from a not-for-profit organisation and trips emphasised volunteering and contained perhaps a day per week or a few hours per day as free time. Any additional travel or sight seeing was organised either before, or after, the tour independently by the volunteer.

In contrast, a number of United Kingdom programs aimed to combine volunteering and tourism. For instance, BTCV trips may have included a three-day travel program to a scenic site as a fun accent and break during a volunteering trip. Discovery Initiatives, a British-based commercial operation ran trips of up to several weeks that included only a few days of actual volunteering.

While North American trips were targeted at all ages (above a minimum), the United Kingdom and European programs tended to be cheaper and attracted mostly students and young adults. While a few organisations had an international client base, most
tended to attract participants from the same country as their headquarters despite many organisations having web sites for international dissemination. Discussions with participants indicated this may be partly due to the infancy of the sub-segment, and the lack of knowledge about alternative organisations. Participants contributed considerable time and effort to the 'cause' and wanted to know the program they were to join had been accurately represented in the advertising. Word-of-mouth recommendations were important. Another factor possibly influencing the sales location was language, as many trips had a small team size and instructions must be understood.

4.5.9 Participant profiles

Some organisations developed programs that specifically targeted certain market niches while others concentrated on developing programs around research needs and adapted these to ensure they attracted participants. Programs designed for specific market niches often were directed at students or youths and were outside this definition due to either the accreditation process and/or because they involved longer-term projects (such as Operation Raleigh or Frontier). These included the international volunteer summer vacations for pre-college students that developed not only as a means of making a positive contribution, and as a self-learning process, but as an important asset on curriculum vitaees for gaining entry into the more prestigious United States colleges (Anonymous, 2001).

There was no comprehensive information that profiled participants for this sub-segment or the broader area of volunteer tourism. Appendix 1 summarised some of the considerable socio-demographic analyses that had been undertaken in related areas but whether participant profiles within the PERT sub-segment may be changing due to broadening appeal, greater market penetration or because of supply changes as organisations alter their marketing and fine-tune their trips (as described in Section 4.5.12) is currently unclear. Unfortunately few organisations published detailed data on participant profiles and data aggregation varied, making comparisons difficult. The information from the global search is summarised in Appendix 1 and extends the literature reviewed on this topic in Chapter 2.
Data in Appendix I shows that a wide range of ages (although most organisations have a minimum age requirement), and more females than males, appeared to participate in the PERT sub-segment. Both ecotourists and participants in the PERT sub-segment appeared to be well-educated and from a professional background. Students and retirees were also active in the PERT sub-segment. Less data were available in other areas but a significant portion of participants appeared to be single, widowed or divorced and the Earthwatch fact sheet stated ‘the majority of our volunteers travel alone’ (Earthwatch Institute, 2004a).

Currently the profile information within the PERT sub-segment is insufficient to make conclusive comparisons with the socio-demographic traits of other types of tourists or volunteers and socio-demographic data may also vary within the PERT sub-segment. Variations may be based on research subjects, as, for example, an Earthwatch shark project in Florida had many teenage participants (Russell, 1995), but profiles are likely to have been influenced by factors other than species preferences, such as level of physical activity and type of tasks undertaken.

4.5.10 Structure of organisations
The structure of the 39 identified organisations were tabulated and 77% of trips were offered by not-for-profit organisations, 13% by profit-making enterprises, 5% by government organisations, 3% by a university and 3% were unknown. The dominance of the not-for-profit sector was not surprising and the range of involvement with tourism activities have been identified (Turner et al., 2001). The tax deductibility incentive for United States-based sales (the geographic area with highest level of involvement in the PERT sub-segment) was discussed in Section 4.5.8 and required a not-for-profit structure. Analysis during the global search showed not-for-profit organisations had been established and were managed within the PERT sub-segment by commercial operators, scientists or not-for-profit conservation organisations. Consequently the goals and operations of this group were quite diverse. This research demonstrated that although the majority of PERT operations are run by not-for-profits and these fit in the
category Turner et al. (2001) termed as charities operating within the tourism industry, other types of organisations also operate in the PERT-sub-segment.

4.5.11 Organisation goals and reasons people join

During the process of defining the PERT segment and identifying organisations within it, considerable textual material was collated. Two aspects were examined: the goals of the organisation and the range of benefits that the organisation suggested arose from undertaking one of their trips. These provided a better understanding of operations within the sub-segment, enabled comparisons with the case study information presented in Chapter 6 and 8, and provided background information to develop the next stage of the analysis.

Published material from the 39 organisations identified in the global search were gathered during the global search (Aug-Dec 2001), and then updated in October 2002, when the textual analyses was conducted. In most cases, organisations clearly identified their vision, mission statement, or goals and objectives. In some cases though, running PERT-style trips was not a major component of an organisation's work (for instance, the Kings Park Botanic Gardens) and statements referred to the whole organisation, not just the PERT component, and so these organisations were excluded from this analysis. The goals or objectives were identified for 21 of the 39 organisations, and analysis of these showed seven key goals or objectives. The results of the analysis are presented in Table 4.1.

Chapter 3 outlined issues concerning the process of textual analysis (Section 3.6.2) and a manifest content analysis approach was used similar to that developed by Weber (1990). Despite the manifest aspect, some interpretation was required. Inferences rather than actual words were used to determine the categories 'support specific area' and 'specific species or group'. Rarely did texts use these exact words but, for instance, the Orangutan Foundation and some of the cetacea and turtle organisations only conduct trips focussing on a specific species. Others are area specific, working to conserve a certain location, and if this was indicated in their text, the category 'support specific area' was marked.
The textual analysis was tested for accuracy by having a sample of the texts coded by five other people. Initial differences were minimised after grouping categories and a maximum 6% difference was noted with the second testing.

Table 4.1 Key goals of 21 global PERT organisations

<table>
<thead>
<tr>
<th>Goal</th>
<th>n</th>
<th>Per cent of PERT organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducting real research, supporting research, supporting scientific community.</td>
<td>19</td>
<td>90</td>
</tr>
<tr>
<td>Education, providing learning and benefits for volunteers.</td>
<td>18</td>
<td>86</td>
</tr>
<tr>
<td>Supporting conservation/preservation.</td>
<td>18</td>
<td>86</td>
</tr>
<tr>
<td>Promoting interest in conservation, changing public attitudes.</td>
<td>12</td>
<td>48</td>
</tr>
<tr>
<td>Promoting partnership between science and public, providing links between science and public.</td>
<td>9</td>
<td>43</td>
</tr>
<tr>
<td>Allowing the public to actively contribute to environment, make a difference, take responsibility, practice and promote environment responsibility.</td>
<td>9</td>
<td>43</td>
</tr>
<tr>
<td>Supporting specific species or group.</td>
<td>9</td>
<td>43</td>
</tr>
</tbody>
</table>

Turner et al. (2001) examined charity operations within the tourism industry, including volunteer tourism, and noted the key reason for operations was the need for funds as well as the types of goals identified in Table 4.1. The fundraising aspect and need for a charity to be seen to be actively and successfully supporting its cause were implicit in the material examined here and so not identified in Table 4.1.

Twenty-eight of the 39 identified organisations also published materials outlining the reasons volunteers join their trips. The most important reasons are presented in Table 4.2. The results in this table were combined with other information, including material from the popular press (particularly books listing volunteer vacations such as Ausenda, 1998; McMillon, 1999; Ocko, 1990; Tovey, 1993), advertisements, published organisation literature including on the Internet, and discussions with key stakeholders, to compile a list of the range of benefits these sources stated as potential outcomes from PERT-style trips. The benefits are listed in Appendix 3.
Table 4.2 Key reasons for joining used by 28 global PERT organisations in their advertising

<table>
<thead>
<tr>
<th>Reasons</th>
<th>n</th>
<th>Per cent of organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn, gain knowledge.</td>
<td>17</td>
<td>61</td>
</tr>
<tr>
<td>Help scientists.</td>
<td>15</td>
<td>54</td>
</tr>
<tr>
<td>Have a productive holiday (with a purpose), make a difference, gain a sense of achievement.</td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td>Help protect or contribute to the environment.</td>
<td>12</td>
<td>43</td>
</tr>
<tr>
<td>Gain new skills/training.</td>
<td>12</td>
<td>43</td>
</tr>
<tr>
<td>Have team adventures.</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>Meet travellers with the same interests, make new friends.</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>Go places and do things tourists are not allowed.</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>Have an experience of a lifetime.</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>It's for anyone.</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>Visit a special area.</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>See a special animal.</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>Use your skills.</td>
<td>6</td>
<td>21</td>
</tr>
</tbody>
</table>

4.5.12 Changes over time

Examination of how existing organisations have fine-tuned their programs can give further insights into the balance in the PERT sub-segment between perceived supply and demand. Section 4.5.4 described how Earthwatch had altered the subject of the trips from the early 1970s to 2001. The length and structure of trips was also critical in terms of sales. For instance, Global Volunteers in the mid-1990s decreased the length of trips to accommodate professional’s busy schedules, and added less strenuous options for retirees (Klein, 2000:69). Groups such as the whale research organisation, CERF, gradually increased the ‘lecturing and course style’ presentations in their trips to cater to demand (Megill, 1997). Earthwatch added two less work intensive options. Master classes visit several projects but do not participate in fieldwork and the trips are ‘issue-based educational travel’. Discovery Weekends were also introduced as a ‘rare opportunity to join a team closer to home, to test waters, to meet new friends or join up with old ones ... [allowing participants] to support the work of scientists, not only in the field, but also on their return, when they begin analysing and cataloguing’ (Earthwatch Institute, 2001b:no page).
Data were collated during the global search (August to December 2001) on organisations operating within the PERT sub-segment. To help determine the level of variance from year to year, data were collected in 2003 from the same 39 organisations. The number of trips had dropped from 887 to 661. The main reason for the drop in numbers was that one significant-sized organisation had changed from running specific trips to accepting volunteers on a flexible date system all year at a number of locations. All trips within the PERT sub-segment were analysed for the subject of the trip and their location.

The most popular area was 'marine mammals' representing 27% of all trips, followed by 'terrestrial mammals' 23%, 'turtles' 15%, 'marine biology' 10%, 'birds' 8% and 'ecology' 10%, 'plants' 6%, 'reptiles' 4%, 'insects' 2%, 'freshwater fish' 1% and 'amphibians' less than 1%. These percentages are similar (within 2%) to those in 2001 except for 'ecology' or mixed subject trips which had doubled from 5% in 2001 to 10% and 'flora' that had increased from 2% to 6%.

The location data showed more variability. The Central and South America area accounted for 32% of all trips, Africa for 25%, North America 23%, Australia/New Zealand 8%, Asia 7% and Europe 5%. A comparison with the 2001 data revealed substantial differences, with the percentage of trips in Australia and Europe having dropped and trips in Africa becoming far more popular. Without further research it is not possible to determine why these changes may have occurred but does indicate change within the PERT sub-segment, potentially due to its emerging status.

4.6 Analysis of PERT as a Sub-segment

This research was exploratory and designed to provide a base for the second stage of this research. Market segments are considered an artificial construct rarely resulting in clear segmentation, but are a critical tool for understanding the industry (Dolnicar, 2005). This research did not aim to prove PERT was a valid market segment, but a brief evaluation of the definition established in Section 4.3 is useful.
Eight criteria were established for determining a market segment by Dr. Morrison (in Moscardo et al., 2001a:31) and these are listed below. The PERT market segment developed from the definition in Section 4.3 and analysed in Section 4.4 and 4.5 appears to meet the criteria that a segment should be:

- suited to the products or services offered by the organisation;
- require different marketing strategies;
- large enough in size to warrant separate attention;
- able to be easily reached or accessed by an organisation; and
- identifiable with a reasonable degree of accuracy.

The extent to which the PERT sub-segment may meet the remaining three criteria is currently less clear:

- people within a segment should be similar to each other and segments should be as different from each other as possible;
- there must be some stability in the segment; and
- identified segments need to be compatible with existing markets.

Product markets, discussed in Section 2.2, are considered to have a life cycle. Their evolution is the result of forces including demand, supply and the supporting resource environment (Lambkin & Day, 1989). It is argued here that the PERT sub-segment is a relatively new product market within the area of volunteer tourism. Information obtained during this global search showed PERT-style trips have occurred for many years but became the focus of some organisations in the 1970s, and were well established by 2001 but still few in number. From both consumer and producer points of view PERT-style trips appear to be not widely known. For instance, there is often a lack of awareness of substitute products within the same sub-segment by consumers (discussed further in Chapter 8). The lack of knowledge surrounding the sub-segment is exacerbated by different terms used within the sub-segment and the extent to which the product is perceived to be volunteering or tourism. Such issues indicate an unstable product market (Rosa et al., 1999:5). Both producers and consumers need to share a common
understanding of the product market for it to be stable. Rosa et al. (1999) argued that market stories published by the media and other forms of communication are vital in establishing a market and it could be argued that the grey material and popular press articles discussing the PERT sub-segment are helping stabilise the sub-segment.

The characteristics of the PERT sub-segment, such as the specialisation, trip length, experiential learning, high interpretation, physical challenges, often basic infrastructure and strong conservation focus, confirm the suggestions of other researchers (Weiler & Richins, 1995) that the types of trips within this area are hard-core ecotourism (see Section 2.2.2). It is likely the trips attract people with higher levels of environmental concerns and an interest in learning and self-discovery, but further research is needed to demonstrate this. Although PERT style-trips are not the only form of hard-core ecotourism, the small current size of the sub-segment also confirms views of other researchers that although ecotourism and an interest in nature-based holidays has been growing rapidly, the number of people taking hard-core trips, is still relatively low (Weaver, 2002:20-21).

4.7 Summary
The global analysis of the PERT sub-segment conducted in this chapter has provided an understanding of the area and enabled the creation of a workable definition for the sub-segment. Eight characteristics were identified that can be used to distinguish this type of volunteer tourism from other types of tourism or volunteering and the defining characteristics were relevant from the demand and supply perspectives. Although the exploration of each characteristic demonstrated there were issues, this is not unusual in tourism segmentation and the sub-segment appears to meet most of the criteria for the establishment of a product market. However, the PERT sub-segment is small, information concerning the sub-segment is limited, and it is probably still emerging and could be currently considered an unstabilised product market. This view fits with the general knowledge of the area that revealed PERT-style trips are not new, but in the 1970s organisations focussing solely on the provision of PERT trips emerged, and by the
1990s academic references to the potential benefits of these types of trips became more frequent (as discussed in Chapter 2). Trips now operate in most parts of the world. Further work is needed to determine the validity of PERT as a sub-segment and further analysis of changes within the sub-segment over time would contribute to a better understanding of the market influences affecting the success of organisations within this sub-segment.

Section 2.8.1 highlighted the need to understand the sub-segment, examine its size and the types and ranges of operations within it. Having established definitional characteristics for the sub-segment in Section 4.3, 39 organisations operating 887 trips were identified during a search conducted at the end of 2001. Most were not-for-profit organisations. Marine and terrestrial mammals, turtles and marine biology trips dominated as research subjects for the trips and the reasons for the dominance of these subjects appeared to be both supply and demand driven. Around half of all trips were conducted within the Americas, and North America was the principal location for organisation head quarters operating these trips. Regional differences between organisation operations in North America compared with Europe existed and this may be based on slightly different target markets and differences in taxation. As this research focussed on English-speaking trips, it is likely that some parts of the world were under-represented. Further work is needed to clarify the extent of and reasons for regional differences.

Profiles of participants were not easy to characterise and there was little detailed information available. Participants were more likely to be female, well-educated, professionals, and generally people joined as individuals or singles, and not in groups. All age groups appeared to participate, although a number of organisations applied minimum age limits. Variations in ages existed and these may be based on specific trip characteristics or on target marketing by specific organisations. More research is needed to clarify this.
The research conducted in this chapter is only indicative of the characteristics of the global sub-segment and variations within it. Despite the limitations, the data provides an overview of the sub-segment and operations within it, helping contribute answers to the calls for further research outlined in Section 2.8. This chapter also provided a background for the more detailed exploration of operations in Australia (Chapter 5) and allowed comparisons to be made between global operations within the PERT sub-segment and the case study analysis of specific organisations contained in Chapters 6, 7 and 8. Data on the goals of the organisations operating in the sub-segment and reasons why participants and field researchers join these trips (see Appendix 3) also helped structure the questions used during the second stage of this research.
CHAPTER 5
PERT OPERATIONS IN AUSTRALIA

5.1 Introduction
The last chapter provided an a priori segmentation of the global market, a definition, and information concerning the variety and number of organisations operating within the PERT sub-segment. This chapter describes additional information gathered within Australia that allowed a more accurate understanding of the types of trips, activities and issues within the PERT sub-segment. The Australian information was used as a basis for the selection of case studies, and helped determine the most appropriate approach for the next stage of this research and, together with Chapter 4, allowed the results of the case studies, presented in Chapters 6, 7, and 8 to be placed in context.

This chapter also further examines and clarifies some boundaries of the PERT definition developed in Chapter 4. Specific areas of interest were the boundaries between PERT and volunteer programs with wildlife or conservation-oriented organisations, courses, local volunteer programs that involved travel, and the distinction between field research station volunteering and expedition-style trips. The more detailed search conducted in this chapter also provides a check on the work conducted in Chapter 4 to determine whether small organisations had been missed in the initial global search, whether new organisations had started since 2001, and whether organisations operating within the PERT sub-segment during the 2001 search had altered their mode of operating and shifted outside the sub-segment.

The method used in this search is described in Section 5.2, the limitations in Section 5.3, and the information on the organisations identified in Section 5.4. The definition of PERT developed in Chapter 4 was re-examined in Section 5.5 and the selection of the case studies is described in Section 5.6. A chapter summary is provided in Section 5.7.
5.2 Method
The global snapshot described in Chapter 4, and conducted in 2001, formed the initial information source for identifying individual operations within Australia. Academic, grey and popular literature, web searches, magazine advertisements and brochures helped identify operations potentially within the PERT sub-segment. The process often identified operators, scientists or past participants. To confirm details about the exact nature, size and logistics of an operation, individuals were contacted where necessary to clarify information or provide more detail on operations. Additional information was sought on proposed PERT-style programs that were being started. To help provide a historical frame, past operations were also identified where possible.

The focus of this search was to identify organisations operating trips within Australia in the PERT sub-segment. The search did not aim to identify international groups advertising overseas trips in Australia. All information or data used in this chapter were obtained from organisation websites accessed during the search period unless otherwise indicated. The website reference is given in the heading of each section (unless one was not available).

5.3 Limitations
Cultural differences, infrastructure, environmental issues, the views of each set of stakeholders and alternative options are some factors that are likely to alter the extent to which a country may have operations that are within the PERT sub-segment. Hence, the overall results of this chapter are specific to Australia and PERT-style operations and issues within the sub-segment in other countries may differ.

Although the search aimed to closely examine the operations within a single country, many of the measurement and definitional limitations discussed in Chapters 2 and 4 remain valid: It was still impossible to know if all programs had been identified. The search was conducted from 2001 to 2003 and over that period organisations moved in, and out, of the sub-segment and the number of trips run by organisations within the sub-
segment altered. This research, therefore, provides a spatial and temporal snapshot of the PERT sub-segment in Australia.

5.4 Identified Organisations within PERT

5.4.1 Conservation Volunteers Australia (Conservation Volunteers Australia, 2003)
The Australian Trust for Conservation Volunteers was founded in 1982 in Ballarat, Victoria and is now called Conservation Volunteers Australia (CVA). It is Australia’s largest practical conservation organisation with 22 offices across Australia, employing 240 staff, and close links with international organisations including BTCV (discussed in Chapter 4). CVA was structured using ideas from BTCV and United States models to develop an organisation for Australia’s requirements (Anonymous, 1997). Annually the organisation completed more than 1500-week long conservation projects across Australia and has numerous shorter projects (Conservation Volunteers Australia, 2003). It achieved 45,000 annual volunteer days (Davies, 2001:1) and around half of these were contributed by international volunteers. In 2000, over 1,200 international volunteers visited Australia on a CVA conservation experience package (Davies, 2001:3).

The organisation’s mission is ‘to attract and manage a force of volunteers on practical conservation projects for the betterment of the Australian environment’ (Davies, 2001:1). It focuses on community involvement in conservation projects in urban, regional and remote Australia, ranging from tree planting, seed collection, endangered species protection, weed control, flora and fauna surveys, walking trail construction, to fencing and environmental monitoring.

Overnight trips involves a daily fee to cover food, accommodation and project-related transport and in 2003 cost $15 for members (Australian residents), or $23 for others (Conservation Volunteers Australia, 2003). Costs are kept low because organisations pay for the work done by the volunteers. This payment by organisations to hire CVA volunteers creates contractual obligations regarding work quantity, quality and completion timeframes. The payment was implemented, partly, as landowners were not later maintaining the work that had been done for free (Anonymous, 1997:11).
Corporate sponsorship and grants allow CVA to also undertake work without a payment from the receiving organisation, and provide support for groups without the ability to pay, such as Landcare and Coastcare. For instance, in 2002, Toyota sponsored a series of penguin research trips in various states.

Part of CVA's success has been due to its volunteer recruitment strategy that includes networks of international travel agents, schools, youth groups, environmental groups and volunteer centres. The programs are oversubscribed and in 1997 it was receiving around 2000 enquiries per month for 300 places (Anonymous, 1997:12). Local volunteers are most likely to assist with the free day trips, rather than pay to undertake volunteer tourism. About 60% of volunteers are male and 80% are domestic and the majority of volunteers are 18-25 year olds (Anonymous, 1997:9).

CVA managed additional programs such as Green Reserve (that involved Australians aged between 35 and 65 in local conservation projects). It also has an active corporate partner program.

In 2001, Naturewise was started by CVA and included a range of conservation research holidays that assisted field specialists with research projects in Australia. It targets the holiday market more than other CVA programs and provides an opportunity for people to engage in hands-on conservation projects as part of a holiday experience. There is no payment by the receiving organisation for the work completed.

Many CVA trips include neither a research component nor a focus on replanting, weeding or fencing. These were outside the PERT sub-segment. The requirement that organisations or individuals pay CVA for work done by volunteers alters the expectations and perceptions of results for those involved and so these trips were not considered for inclusion in the following stages of this research. Sponsored trips that had a research focus were within the PERT sub-segment. Their identification was often only possible through discussions with CVA managers in each State. While some trips were planned well in advance, others were run at short notice and it was not feasible to
establish an accurate annual picture of all CVA trips that were within the PERT sub-segment. It was possible to identify the Naturewise trips that were within the PERT boundary. Naturewise trips were seen as different from other CVA trips by participants, the organisation and researchers and the expectations and benefits by the stakeholders were considered similar to those of other PERT-style trips.

5.4.2 The Oceania Project (The Oceania Project, 2001)
The Oceania Project was established in 1988. It was incorporated as a non-profit charity in 1991. The Project aims to educate the public on cetacea and the oceanic environment. The focus is on humpback whales in the area of Hervey Bay, Queensland and research trips are conducted in conjunction with the Queensland Environmental Protection Agency and Southern Cross University. The Project was created, and continues to be operated, by the Franklins as they were concerned that universities and public institutions did not have the ability, or resources, to run long-term projects that required a permanent ship.

Volunteers pay to join a one-week program. In 2002, the ship used (M.V. Moon Dancer) could accommodate 10 passengers and four crew compared with the previous ship that took 24 passengers and six crew. Trip logistics changed slightly with the new ship. The paying participants on M.V. Moon Dancer had a higher level of active involvement in the research and this contributed to higher satisfaction and commitment to the project in terms of return levels. In 2003, 10 trips were offered during the whale season of August to October. Costs were AUD$1150 for an expedition participant (volunteer), $950 for an intern, $750 for youths between 14-18 years old and $750 for children between 7-13 years old (who had to be accompanied by an adult). These trips were considered part of the PERT sub-segment.

5.4.3 The Australia Koala Foundation (Australian Koala Foundation, 2002b)
From trip start-up in 1994 to 2002, the Australian Koala Foundation (AKF) ran 23 research field trips for members of the public, in addition to habitat restoration field trips (Australian Koala Foundation, 2002a). The AKF is a non-profit, non-government
organisation dedicated to the long-term conservation and management of the wild koala in Australia. A key goal is the provision of scientifically-based, credible information relating to the koala.

Field trips are run to ‘enhance our conservation work, give people a hands-on koala experience and generate funds to allow us to continue our work’ (Australian Koala Foundation, 2002a). Field trips are either replanting trips (outside the PERT definition) or research trips and both are run by AKF staff. The research trips are specifically designed to gather data relating to koala populations and habitat for construction of the Koala Habitat Atlas, a project that aims to map, identify and quantify koala habitat throughout the koala's geographic range. The project identifies which trees are preferentially used by koalas and aims to nationally identify and rank koala habitat. As the AKF does not seek or receive Government funding (to ensure it maintains an independent position on koala matters) it needs to gain financial support from other sources, such as field trips. Three research field trips were advertised in 2003 (Australian Koala Foundation, 2002b). Team sizes were 4 to 10 people, including two staff and participants should be between 16 and 65 years old. The cost of a 14 day trip was AUD$2500 and both domestic and overseas visitors participated (Australian Koala Foundation, 2002a). These trips were considered to be within the PERT sub-segment.

5.4.4 Odyssey Travel Edventures (Odyssey Travel Edventures, 2002)

Odyssey Travel is a not-for-profit organisation established in 1983 with the mission:

- to provide educational programs to the over 50s market segment which will enhance their well-being and quality of life. We achieve this by enhancing travel experiences through learning by providing continuing education and lifelong learning for these special members of our communities in Australia and New Zealand (Odyssey Travel Edventures, 2002: no page).

It is based at the University of Wollongong, New South Wales, with 26 educational institutions as members. In 2001, it supported over 20,000 inbound participants, 2,000 domestic participants and 3,500 outbound participants (Odyssey Travel Edventures, 2002).
The majority of the trips involve educational travel, but Odyssey Travel also operate research programs. These were within the PERT sub-segment as Odyssey participants become research assistants under the supervision of a research/study leader. Study leaders receive a grant from Odyssey Travel as well as the financial and physical assistance provided by the participants.

Research trips are a very small component of all Odyssey Travel trips. For instance, the 2003 brochure offered 147 trips and of these, three trips were within the PERT sub-segment. Of the 255 trips offered in the 2004 catalogue, three involved research, and two of these were within the PERT sub-segment. Over the past few years these trips have proved popular and Odyssey Travel is seeking to expand its range of research trips.

5.4.5 Earthwatch Institute (Earthwatch Institute, no date [g])

The development of the Earthwatch Institute was summarised in Chapter 4. It was initially a USA-based organisation that supported scientific research in many countries. The organisation is head-quartered in the United States, but expanded and in 1982 established an office in Melbourne, Australia. In 2003, the Australian office had eight staff members.

Scientific proposals are solicited by Earthwatch principally from doctoral and post-doctoral researchers and all proposals are assessed centrally in the United States, with input from an Australian Scientific Advisory Committee. Grants are awarded on a per capita basis depending on the number of Earthwatch volunteers the trip attracts.

The average project grant range is between USD$16,000 and $48,000 for one full field season. A project usually involves 20 to 60 total volunteers per field season, with 5 to 12 volunteers each on 4 to 5 teams throughout the year. Each team typically spends 8 to 15 days in the field (Earthwatch Institute, 2003b:no page).

In 2003, Earthwatch programs were divided into subject categories of archaeology, biodiversity, cultural diversity, endangered ecosystems, global change, oceans, scuba/snorkel trips and world health. The majority of trips offered were involved with environmental research and all seven of the programs running in Australia were within the PERT sub-segment.
In Australia, Discovery Programs are also offered. In 2003, these all involved environmental research and varied in length from a weekend to 14 days. While Earthwatch program proposals are assessed centrally in the United States (with input from the Australian office), Discovery Programs differ as these are developed, assessed and run by the Australian office and generally are not marketed internationally. Discovery Programs have more diversity in cost and duration of trip, and some are advertised as family trips, allowing a broader target market. Shorter, cheaper trips can also act as a 'taster' for longer trips. Discovery Programs of a few days duration were considered too brief to involve significant training and subsequent undertaking of research tasks by volunteers, confirming the one week minimum limit (discussed in Section 4.3.2). Only one of the Discovery Programs in 2003 operated for longer than one week and it was considered within the PERT sub-segment.

The Australian office has an active Corporate Fellowship Program and in 2003, 16 corporate partners were listed on the website. These support the activities of Earthwatch and often send employees on trips. Employees generally had to apply for a 'scholarship' within their company and may not have had any choice concerning which trip they joined, nor did they pay to join the trip.

Corporate sponsorship is also used to aid capacity building. In 2003 in Australia, two major programs existed. Rio Tinto sponsored an Indonesian Fellowship program and from 1999 to 2003, 19 Indonesian scientists and conservationists joined Earthwatch trips for professional development (Earthwatch Institute, 2003d). The HSBC Global Partnership program sponsored a similar program and Malaysian environmental non-governmental organisations, natural resource managers and young scientists joined Earthwatch trips to gain experience.

Although all Earthwatch trips in Australia were within the PERT sub-segment, some participants were on employee scholarships or capacity building programs and were not within the PERT definition. Despite this, Earthwatch Australia was selected as a case
study as it is the largest global, and largest Australian, organisation (in terms of trips offered) operating in the PERT sub-segment. The organisation operations are described in more detail in Chapter 6.

5.4.6 Landscape Expeditions (CALM, no date [b])

Landscape Expeditions is the only large scale, Government-run program of this type in Australia. It is operated by the Department of Conservation and Land Management (CALM), in Western Australia in association with UWA Extension, a department of the University of Western Australia. Landscape Expeditions started in 1992, principally because of the physically large and sparse population of Western Australia requiring a different approach to support research trips to remote localities. Although the correct term for this program is 'LANDSCOPE Expeditions', for ease of reading this 'brand signature' is not used here, and instead the program is referred to using the term 'Landscope Expeditions'.

Internal scientific needs are assessed and around eight trips are usually run per year. Most members of the research team are employees of CALM. Trips costs for 2002 varied from between AUD$1925 for a one week trip and $4725 for a 10 day trip, and mostly attracted Western Australians, but also some interstate and overseas participants. International marketing is limited, partly due to budgetary restrictions but also as dates are not known far enough in advance for sales through international travel organisations. Most participants have been older, professional, retired or semi-retired people. Volunteer contributions do not cover the full cost of the trip as scientist’s salaries are not included in the costs. Any remaining funds after the trip are returned to the individual research project.

The program provides funding and volunteers to help achieve scientific goals. CALM also recognises that the trips play a wider role in educating the public about the Department, its programs and environmental issues. All Landscape Expeditions trips in 2003 were within the definition of the PERT sub-segment. Landscape Expeditions was selected as a case study and is described in more detail in Chapter 6.
5.4.7 Kings Park, Botanic Gardens and Parks Authority, Western Australia

Starting in 1997, one trip per year, utilising around 15 volunteers, was organised to collect plant seed for the Botanic Garden, usually to a different and remote location. In July 2001, the three week Canning Stock Route trip cost volunteers $2300 each (Revitt, 2001). The organisation is a non-profit group and surplus funds are spent on subsequent collecting programs (Kings Park Botanic Gardens and Park Authority, 2000). The Botanic Garden Herbarium has a large number of active local volunteers who contribute substantially to the work at the Herbarium and many have considerable knowledge and expertise. However, trips are advertised publicly, and are open to all members of the public, not just volunteers. Research on the motivations and satisfaction of volunteers on the trips had been conducted by Revitt (1999). As well as seed collecting, the trips are run to:

- enhance and promote conservation, horticulture and understanding of Western Australian and other flora for the community. A key objective is to develop, manage and interpret and display collections of Western Australian and other flora for visitors and the community. The Living Collections collecting programs assist in achieving these objectives (Kings Park Botanic Gardens and Park Authority, 2000:no page).

Because of the detailed work involved, consequential training and supervision required and the overarching research purposes of the trip, the Botanic Gardens trips were considered part of the PERT sub-segment.

5.4.8 The Waterhouse Club, South Australia Museum (The Waterhouse Club, 2003)

The Waterhouse Club was established to support the South Australia Museum. A number of trips, as well as a series of social and educational functions are run each year for Club members. Some of the trips are short, for a weekend, and outside the PERT sub-segment. Educational expeditions with the theme of 'Seeing the world through the eyes of the South Australian Museum' (The Waterhouse Club, 2003) do not necessarily involve the participant in research. Research-focused trips have also been run, such as fossil digs, cultural and environmental trips. No PERT-style trips were undertaken in 2002, but in 2003 two trips within PERT were undertaken. One was a 12-day trip to
collect marine specimens around the Dampier Archipelago, Western Australia and the other was a 19-day trip to collect small freshwater creatures around Stygo, Western Australia.

5.4.9 James Scheerer Research Charters
At the end of 2001, this commercial company had been operating in northern Western Australia for about five years. The owner/operators, the Shanklands, ran a charter boat that was used by CALM for Landscape Expeditions trips at Dirk Hartog Island involving turtle-tagging. The Shanklands also ran a limited number of their own research trips undertaking similar turtle-tagging work to the same location. Six research trips of two nights each (not counting the Landscape Expeditions trips) were planned during 2001-02 with a maximum of eight participants. Not all these trips were run due to personal reasons for the operators and the company is no longer operating. Past research trips were below the minimum one week cut-off (discussed in Section 4.3.2) so were outside the PERT sub-segment.

5.4.10 Bird-watching clubs and field naturalist associations
Some volunteer programs partly focus on environmental research such as those by Birds Australia, the Threatened Bird Network, Bird Observers Club of Australia, and various field naturalist groups. Most of this type of volunteering is outside the PERT definition as it is too short in duration and does not include a financial payment. Some clubs organise longer trips to more distant locations with the primary purpose of undertaking collection, surveying or monitoring work. The broad use of the term 'research' adopted in this study (discussed in Section 4.3.3) means these trips potentially are within the PERT sub-segment. However, in Chapter 4 these types of trips were considered outside the PERT sub-segment, as the trips are not advertised publicly and members include long-term, highly skilled volunteers who often are utilised in specific ways by researchers.

Closer examination of this boundary within the Australian context demonstrated that some clubs advertise membership to the public and often encourage beginners to join.
Trips. Trip information is increasingly available to all members of the public via the Internet, rather than only to members via direct mail. Organised trips may also have required participants to cover all costs and were sometimes accompanied by key researchers. Birds Australia and the Threatened Bird Network were used as examples for more thorough examination of this area. Both examples extensively use volunteers and have significant numbers of members actively involved in the compilation of research and were analysed for these reasons.

*Birds Australia and the Threatened Bird Network* (Birds Australia, 2002)

Birds Australia was formed in 1901 as the Australasian Ornithologists Union and worked “with scientists, wildlife managers, land holders and nature lovers across the continent to study, monitor and protect our native birds and their natural habitats’ and represent Australian birdlife in the international scene” (Birds Australia, 2003a:37). At a local level, groups and members meet socially, plan bird-watching trips and extend their knowledge. Extensive work was undertaken to produce the Atlas of Australian Birds and from this, an annual State of Australian Birds report was planned to summarise the changing populations of Australian birds. In 2003, over 10,000 volunteers supported Birds Australia and this contribution was worth over AUD$10m per annum (Birds Australia, 2003b).

Because of the wide array of work Birds Australia is involved in, identified trips varied considerably in terms of logistics. This search did not aim to identify every trip but to examine a selection that appeared to be potentially within the PERT sub-segment.

Birds Australia operate sanctuaries, such as Gluepot, Eyre, Newhaven and Broome Bird Observatory, that are open to the public and volunteers are welcome. Courses offered at a sanctuary are advertised to the public via the Birds Australia website. The duration of most courses is shorter than required for inclusion in the PERT sub-segment, but Eyre Bird Observatory offers six to seven day courses. Of the 11 courses it offered in 2003/04, all either focussed on training participants rather than having a goal of obtaining research data, or the leader undertook the research and demonstrated to
participants, rather than participants being trained to help undertake research on that trip. All of these were considered courses and were therefore outside the PERT definition.

The Threatened Bird Network (TBN) has been funded by the Federal Government through the National Heritage Trust to support volunteers in bird conservation and particularly in threatened bird recovery projects. The number of annual projects varied but has steadily grown from 18 in 1996, to 25 in 2000, with an additional four multi-taxon projects (Weston et al., 2003:206). Volunteer hours were categorised by activity. ‘Surveying’ and ‘specialist field work’ comprised 61% of the activities undertaken by volunteers (Weston et al., 2003:206), so volunteers have been significantly involved in the research process.

The TBN listed annual volunteer activities on the web (Birds Australia, 2002) making them arguably available to the public. Ninety-four activities were listed (some activities included multiple trips) and of these, most did not involve a specific trip with fixed dates. Eight stated a specific period within the one to four week requirement of PERT. Of these, three were partially subsided (accommodation was provided and a partial subsidy for food and travel provided, such as the orange-bellied parrot surveying in the south-west Tasmania), two stated specific skill requirements (for instance, banders experienced with mist nets) and three were unclear, but possibly could be classed within PERT. For instance, the Gould’s petrel project ran one trip per year for volunteers to help capture and translocate birds at Cabbage Tree Island. It is the only way members of the public are permitted to visit the island, and the website noted no volunteers were required as the trip was fully booked.

Registration of interest as a volunteer for TBN is free and open to the public, but Recovery Teams are considered to be ‘groups with a knowledge of, commitment to and responsibility for a taxon’ (Weston et al., 2003:206). Research conducted on TBN volunteers revealed 81% stated they could identify all bird species or most species in their taxon when asked about their own field identification skills (Weston et al., 2003:207). Most TBN volunteers have specific skills and the level of training and
supervision a researcher has to incorporate in a trip is considerably different to that within PERT, where no previous specific skills are assumed or required. The difference in skills confirmed the decision not to include this group within PERT.

5.4.11 Marine monitoring projects
Considerable work had been done concerning volunteers working on coral reef or fish monitoring on the Great Barrier Reef. The global analysis conducted in Chapter 4 demonstrated that marine biology, particularly coral reefs, was the most significant research subject for PERT-style trips in 2001. Both demand and supply factors are likely to have contributed to this popularity (see Section 4.5.4). The physical size of the Great Barrier Reef and its multi-use nature, meant park management authorities recognise that successful management requires the development and application of concepts such as stewardship and a cooperative management approach in conjunction with industry, science providers and the community.

Underwater volunteer monitoring programs, such as Reef Watch, Reef Check and the Global Coral Reef Monitoring Network, exist and these vary in their style and approach. Reef Check was started by an Australian scientist seeking to gain a better understanding of the plight of the world’s coral reefs, and had the dual mission of gathering data and raising public awareness. It was launched internationally in 1997, The International Year of the Reef, and was carried out between 14 June and 31 August 1997 to provide a snapshot of reef health. Due to its popularity, Reef Check became an annual global program aiming to raise public awareness, obtain high quality scientific data and provide local reef managers with the tools and resources necessary to manage their reefs at a community level (Reef Check, no date). It can be undertaken by local divers in their own area, or by tourists travelling to volunteer and collect data in a more remote area. Reef Check in Australia in 2003 did not use short-term volunteers (within the PERT definition) for data collection, because of training issues, although short-term volunteers were used internationally. No trips involving ReefWatch or the Global Coral Reef Monitoring Network in Australia were found during the search period.
A Coral Reef Monitoring Project was developed for use by local volunteers or the marine tourism industry utilising tourists as volunteers (Musso & Inglis, 1998). The trial project received a positive response and demonstrated that non-experts could collect reliable quantitative information with limited training, but noted it was more appropriate for visitors staying over three days and with more than 30 hours dive experience. Short-term visitors (defined as three days or less) were considered less interested and less inclined to be willing to participate in volunteer research and visitors needed time to assimilate instructions (Musso & Inglis, 1998). During 2002 and 2003, no operation running this program was identified.

5.4.12 Other volunteer research projects

A number of other organisations and programs were examined in detail, but no operations within the PERT sub-segment were identified. For instance, the Great Barrier Reef Research Foundation has a series of research stations including Lizard Island, Low Isles, Heron Island, Moreton Bay, One Tree Island and Orpheus Island. Volunteers were used at some of these, but no formal program of a PERT-type existed. Similarly, the Cape Tribulation Tropical Research Station used volunteers, but not in a formal fixed-date style, nor were volunteers necessarily undertaking research tasks.

Australian Geographic Travels and Expeditions Program (Australian Geographic, no date) was operated by Voyages Hotels and Resorts Pty Ltd, under exclusive license from Australian Geographic Pty Ltd, but operated for only about a year. It did not run any research trips within Australia, and mostly focussed on educational trips. Prior to the search period, Discovery Ecotours operated trips that included optional participation in research activities but the company altered its focus slightly to educational travel only, not research trips, so was outside the PERT definition (Harris & Leiper, 1995; Preece et al., 1995).

A variety of volunteer monitoring projects operate within the Great Barrier Reef Marine Park but were outside the PERT sub-segment as they are undertaken by operators, are too short in duration, such as the ‘Eye on the Reef’ program (Musso & Inglis, 1998), or
are undertaken by local volunteers, such as the Order of the Underwater Coral Heroes (CRC Reef Research Centre, 1998). Alternatively ship operators, such as Undersea Explorer, offer space for researchers on board, use the research to help interpretation and marketing, but the trips are not primarily oriented around the research. Other volunteer monitoring programs for day trips also exist, such as an interpretive program developed by Quicksilver (Crabtree & Gibson, 1991; Kahn & Johnstone, 1995).

Examples of short-term, paying volunteers gathering research were also found. For instance, Earth Sanctuaries Limited operate a platypus monitoring survey and a marsupial count at Warrawong, South Australia and a Tasmanian company, Tayatea, during 2003 started operating day trips where visitors help conduct giant freshwater lobster surveys in northwest Tasmania. Because of their short-term nature (one day or less), these types of trips were considered outside the PERT definition.

Organisations operating trips for students, and volunteer trips without a financial payment were examined and excluded, as well as others clearly not within the PERT definition developed in Chapter 4. Additional organisations and operations examined included CSIRO Tropical Forest Research, Western Australia Museum, Coates Wildlife Tours, Port Stephens Dolphin Watch, IVA, Dolphin Discovery in Bunbury, Patriarch’s Sanctuary on Flinders Island, Australia and New Zealand Science Exploration Society, Australis, Naracoorte Caves, Bookmark Biosphere Trust, EcoExplorers, WWF Australia and Peter Mack Turtle Conservation Association. Of these, only the latter one appeared to be within the definition of PERT but no contact details were found to confirm this.

During this analysis it was noted that many of the operations appear supply-driven and started as scientists needed to be able to access finances, and to a lesser extent, free labour to conduct their research. Researchers analysed their own situation and decided whether to start their own operation, apply to join an existing organisation, or to use an alternative means outside the PERT sub-segment to gain funding and volunteers. Some researchers utilised more than one organisation operating PERT-style trips, or combined PERT-style trips with alternative mechanisms to achieve their research goals, such as
Bare Sand Island Volunteer Sea Turtle Research Expeditions operated by the Charles Darwin University, Darwin and Biomarine (Biomarine, 2001), the Department of Conservation and Land Management in Western Australia, and Pelican Lagoon Research Station, Kangaroo Island in South Australia.

5.5 Implications for the Definition of PERT

The more detailed investigation of the PERT sub-segment conducted in this chapter provided further clarification of the definition developed in Chapter 4. Eight trip characteristics were used to define the PERT sub-segment in Chapter 4. These are discussed below to indicate any extension of ideas or provide clarification.

The trip characteristic 'active participation by members (hands-on role)' helped identify several potential PERT-style trips within Australia as outside the boundary. Educational trips with leading scientists are becoming quite common in tourism. Trips, such as those with the Undersea Explorer, allow researchers to join the live-aboard dive ship and conduct research as well as providing a high interpretive component to the trip and a sense of discovery for passengers. Tourists can assist, but are not obliged to do so. Research is not the primary goal of the trip, the boat itinerary is not determined according to research needs, and the trip logistics do not revolve around training and supervision of the tourists to assist in research collection. A number of The Waterhouse Club examples also fit this category.

The requirement of a one week minimum was also useful to segregate volunteer activities very different in logistics and nature. For instance, the mammal counts conducted by Earth Sanctuaries Limited only take a few hours, and Earthwatch Discovery Weekends do not include the level of training and active participation of the longer Earthwatch trips, and so are considered by both organisation staff and participants as quite different.

Travel trips can include a more structured educational component and examples of this within Australia are courses run by experts, such as Eyre Bird Observatory courses that
train volunteers in bird banding. During the course, data are collated, but the primary purpose of the trip is to train volunteers, not collect data.

The definition developed in Chapter 4 implied that research was the primary purpose of the trip but this should be added explicitly as an additional trip characteristic as it was crucial in determining the involvement of researchers and therefore the supply of trips. It helps segregate educational trips and courses from PERT-style trips. It also helped clarify the inclusion or exclusion of other trips. For instance, the principal activity undertaken on the Kings Park, Botanic Gardens and Parks Authority trips was seed collecting. If this activity was conducted to provide stock for nurseries, it would not be considered part of PERT as the focus of the trip would not have been research. Examination of the Kings Park trips revealed small-scale collection of unusual species involved very similar tasks and operation-style, to some types of botanical research work undertaken by Landscope Expeditions. To clarify the boundary, an existing trip characteristic was extended to be 'ecological field research or data collection as the primary trip goal'.

5.6 Case Study Selection
The variety, level and detail of operations existing in Australia were examined between 2001 and 2003 to indicate the most appropriate organisations to use for a case study analysis. Issues concerning case study selection and the number of case studies were discussed in Section 3.5 and a comparative case study approach using no more than four cases studies was recommended. The relatively strict definition of the PERT sub-segment developed in Chapter 4, and extended in the first part of this chapter, helps clarify aspects of the wider area of volunteer tourism by creating the sub-segment of PERT. Chapters 4 and 5 also provide background information and a population frame from which to select the case studies. The case study analysis presented in Chapters 6, 7 and 8 aim to investigate the range of benefits perceived by key stakeholders within the PERT sub-segment. Benefits are likely to alter if organisations have different target markets, methods of operating or goals. Other factors may also influence the perceived benefits and so case studies were chosen purposefully.
For methodological and logistical purposes only operations conducting a number of trips per year were chosen. Very small operations such as the Australia Koala Foundation, Odyssey Travel or Kings Park Herbarium had too few participants per year to make surveying and subsequent analysis appropriate. Analysis of one or two trips was not considered sufficient to be indicative of the trip benefits for that organisation, as issues such as personality clashes or bad weather may alter stakeholder perceptions of trips.

Nine organisations were identified in Section 5.4. Four organisations appeared to conduct, or be likely to conduct, more than three trips per year. Landscape Expeditions run approximately eight per year and was chosen as it is a Government-run operation, reasonably stable in size, style of trip and principally capturing an older, well-educated, domestic market (particularly within Western Australia). Earthwatch was chosen as it is the largest operator within the PERT sub-segment in Australia. As an international not-for-profit organisation it was likely to have both Australian and international participants. Naturewise, operated by CVA, was chosen as its target market is less developed (it started in 2001) but CVA is the largest provider of conservation volunteers in Australia (although most were outside the PERT sub-segment). Discussions during 2001 revealed more than three trips per year within the scope of this research were planned. The existing CVA volunteer target market is younger people and trips are inexpensive, so it was likely the participants may differ from those attracted to either Earthwatch or Landscape Expeditions. By selecting a program in its start-up phase, different operational aspects may also become apparent. The Oceania Project was contacted for potential inclusion, but was not eventually included due to logistical problems of obtaining data and, therefore, the case study selection process considered both methodological and logistical aspects, as was recommended in Chapter 3.

5.7 Summary
This chapter provided a detailed examination of a number of organisations operating within the PERT sub-segment in Australia. The Australian search period from 2001-2003 was longer in duration than the global snapshot undertaken from August to
December 2001 (see Chapter 4). Organisations that were not identified as running PERT-style trips in Chapter 4 sometimes did so in subsequent years, such as The Waterhouse Club, confirming the dynamic aspect of the sub-segment discussed in Section 4.5.12.

The definition developed in Chapter 4 was closely reviewed in this chapter. Some aspects of characteristics previously noted, but not included as a separate definitional characteristic, were significant in distinguishing between PERT style-trips and other operations. For instance, the need for active participation in the research; research as the primary focus of the trip; and the need for sufficient time to train the volunteers and then have them utilise the training in the field, were each recognised as critical aspects. The characteristic of ‘advertised publicly’ appears to be less important than the decision to use skilled volunteers (outside PERT) or use ‘non-specialist volunteers’.

The more detailed examination of the Australian sub-segment in this chapter, allowed purposeful selection of the case studies for the next section of this research. Both methodological and logistical aspects were important in the selection. Larger case studies were chosen to allow for sufficient data collection. Differences between the modes of operating, target markets and structures also existed and these may influence the range of perceived benefits. Landscape Expeditions, Earthwatch Australia and Naturewise (operated by CVA) were chosen. Information on each organisation, perceptions of members of the field crews, and participant information are described in Chapters 6, 7 and 8 respectively.
CHAPTER SIX
THE ORGANISATIONS

6.1 Introduction
Organisations act as the lynchpin matching the researchers who provide the trip focus, with members of the public seeking this type of volunteer tourist experience. Understanding the roles played by organisations is critical in developing an understanding of the PERT sub-segment. Chapters 4 and 5 broadly described organisations operating within the PERT sub-segment and this chapter extends this work by analysing each organisation selected as a case study.

Information on organisation goals (past, current and future), issues, logistics concerning program operations and changes in style of operation over time was gathered. Discussions were also held covering marketing, specific features of trips, how trips were constructed to ensure success and staff views concerning members of the field crews and participants. These areas are described for Landscope Expeditions in Section 6.2, for Earthwatch Australia in Section 6.3 and for Naturewise in Section 6.4. A comparison of the three organisations is given in Section 6.5.

The methods used to collect the data for this chapter were briefly described in Section 3.7.1. Face-to-face interviews, telephone and email discussions, as well as textual material produced by the organisation, were used to establish the reasons each organisation operated trips within the PERT sub-segment. Visits to the headquarters served several purposes besides gathering information about the goals of each organisation. It was considered important to interview organisation staff face-to-face to engender cooperation and determine appropriate means of collating data not only for this section but also subsequent data stages concerning field crews and participants. In addition, a substantial amount of information was required from a few people and respondent burden was a potential issue. Differences between formal, often high level mission statements, and operational goals, were also explored through semi-structured face-to-face interviews and informal discussions.
6.2 Landscape Expeditions

The Landscape Expeditions program, operated by CALM, was briefly described in Section 5.4.6. Additional information on the operations and goals of the program are discussed here. The specific methodology used to obtain the data, together with limitations is presented in Section 6.2.1. Operational aspects are then discussed in Section 6.2.2, followed by the goals for the organisation in Section 6.2.3, and the organisation's perspectives concerning why participants (Section 6.2.4) and members of field crews (Section 6.2.5) join.

6.2.1 Method

Over a four year period (2000-2003) face-to-face key informant discussions were held during several visits to the Perth CALM headquarters. Additional telephone and email discussions also occurred. Two key informants had been program organisers since the program's development and inception. Briefer discussions were held with other staff. Additional data sources included textual material concerning operational details, the corporate purpose of Landscape Expeditions, and stated goals in marketing material were examined and compared. As the goals and outcomes of the trips may have changed over time, information was also collated on the historical development of the trips. For instance, data on all past participants were collated. Trip reports and aggregated answers to evaluation forms were also accessed to provide comparative material for later sections of this research.

Trip leaders and members of field crews are generally from within the organisation, so it was sometimes difficult to separate organisational goals from scientific or field crew goals. Generally, the identified goals of the organisation were expressed as corporate goals or specific aims of the Landscape Expeditions program organisers who are Perth-based staff. The field crew goals listed in Chapter 7 were developed from discussions with field crews (including scientists who usually devised the research and logistical components) of a specific Landscape Expeditions trip. Overlaps can exist between stakeholder groups (Hardy & Beeton, 2001:178) and this was observed during this
research. For instance, the Scientific Coordinator for the Landscope Expeditions program was a key informant for this chapter, but also a research botanist who led trips, and therefore, had specific scientific goals for that trip. No surveyed trips during this research included Landscope Expeditions program managers as part of the field team, helping minimise the overlap.

The two key informants were well versed in both field crews and participant viewpoints regarding the Landscope Expedition trips, as well as understanding the organisational perspective. Both have worked for the program for over ten years, participated in numerous trips and developed close ties with participants and researchers. In-depth discussions held with these key informants revealed a detailed understanding of many of the issues surrounding the trips. The information summarised in this section relates to their perceptions of the corporate goals of the program, not the full range of the key informant’s knowledge surrounding the trips.

6.2.2 Relevant operational aspects

Although Landscope Expeditions is part of CALM’s Strategic Development and Corporate Affairs communications program, the trips are offered in association with the UWA Extension, a department of The University of Western Australia (UWA). The partnership helps overcome logistical problems, as the UWA Extension is a centre for continuing education and has permanent staff, a travel agent’s licence, and custom designed software to support the administrative tasks of maintaining a mailing list, distributing brochures, processing bookings, and paying accounts. The University is also able to hold funds separately from consolidated revenue funding, and operate accounts over a calendar year rather than a fiscal year.

Annually a notice is distributed to staff in CALM’s Science Division and to regional offices, inviting expedition proposals for the following year (CALM, no date [a]:5). Proposals are evaluated according to their ability to utilise volunteers, produce scientific outcomes, whether the trip is likely to attract volunteers and be financially viable. The selection process is done on merit and trips have to be aligned with Departmental
objectives and strategies. Protocols and guidelines have been developed and are outlined in a procedural manual for leaders, to help ensure ‘best practice’ and a uniformly high standard of content and delivery for each expedition.

A relatively high ratio of scientists/rangers/field crew to participants is maintained. For the surveyed trips, the ratio varied from 1 staff per 3.4 participants (Project Eden), to 1 staff per 1.8 participants (Botanical Treasures). Each trip has several scientific goals. Usually participants are split into small groups. Each group, under the guidance of a researcher, undertakes specific tasks such as botanical work, or checking trap lines for live animal captures. Participant teams are rotated among researchers, so participants gain proficiency at each set of tasks. Landscape Expeditions won several prizes, including a 2003 International Environment Award Certificate from the German Travel Agents and Tour Operators Association (DRV), a first for an Australian operation; and an Honourable Mention in the Centre for Australian Cultural Studies (CACS) National Awards for ‘An Outstanding Contribution to Australian Culture’ 2003. They are nationally accredited with the Tourism Council of Australia and were Western Australia’s first business to be listed under the Tourism Council’s Research Expeditions category.

Each trip is run on a not-for-profit basis. Trip budgets do not include the salary costs of the field crew. Typical costs include tour operator fees, fleet vehicles, charter vessels, research costs, UWA administration and developmental work for new trips. After all costs are covered, any remaining funds are disbursed back to individual research projects.

Since the establishment of Landscape Expeditions, the program has been continuously streamlined, but remains largely unaltered in its approach or goals. Administrative overheads are kept to a minimum to ensure the maximum amount of funds go to further scientific work. Although participant and scientific demand for trips have increased (Kenneally, 2002), the number of trips has been kept relatively stable by Departmental policy. In August 2001, the option to ‘tag-along’ was added, allowing participants to
bring their own vehicle and be self-sufficient in food and accommodation and providing a means of increasing participant numbers without substantially increasing logistics. Tag-alongs are also cheaper, allowing the Department to broaden its target market. The first trip that included tag-alongs had 10 traditional-style participants and 14 tag-alongs, demonstrating the popularity of this option. Maximum limits are applied for each trip for both traditional-style participants and tag-alongs. Not all trips are suited to tag-alongs and the option was offered for three of the seven trips in 2001 and four of the 11 trips in 2002.

Budget allocations for marketing are very low, but the unique nature of the product and apparent high satisfaction levels has created a significant level of repeat business (discussed in Chapter 8). Participants are registered as CALM volunteers, receive a 10% purchasing discount, a regular CALM newsletter, and are invited to an annual social function for that year’s participants, research teams and Landscope Expeditions staff. Social aspects are considered an important reinforcement of the team concept and a marketing tool. A trip report incorporating a diary summarising the trip and the scientific outcomes from the trip is sent to each participant. Usually the reports are produced about a year after the trip, after collections have been processed and scientific outcomes become available. The trip reports are around 12 pages, include colour photographs and are useful for marketing, serving to reinforce the contribution made by the team as a whole, bringing back memories of the trip, and can be passed to friends for viewing. The reports also demonstrate the valuable scientific output that resulted from each trip, and are an important archival tool and record, that are formally published and can be added to the author’s list of professional publications.

The changing nature of research needs has meant many trips are ‘one-offs’, and not repeated. ‘One-off’ trips also help maintain a high level of repeat participants. Some trips have been run more than once, as they relate to ongoing projects and continue to sell well. For instance, ‘Beyond the Dreaming – Project Eden’ trips has been conducted on an annual basis since 1996. Although the trip name and broad focus remains the
same, specific work undertaken by participants has altered from year to year, building on previous research outcomes.

Significant secondary data sources were available from the Landscape Expeditions office in Perth. From the inception of the trips in 1992 to the time the research was conducted (March 2003) all available data on past participants was examined, computerised and are presented in Appendix 13. The historical perspective allows the results of the surveyed trips presented in Chapter 8 to be placed in context. Participant data were also compared with statistics for the Australian population (as most participants originated from within Australia) and these are also presented in Appendix 13.

6.2.3 Organisational goals - Landscape Expeditions
A limited number of trips per year, often around seven, are offered and the program "evolved in the early 1990s as an innovative and creative response to community demand for opportunities to do 'real' biodiversity conservation work with scientists" (Kenneally & Paton, 2002:2). The trips are used to conduct research that will help protect the environment and respond 'to the demand for first class interpretation by scientists and specialists' (Australian Heritage Commission, 2001:42). One of the key reasons CALM became involved in this type of tourism, and continues to be involved, is the size of Western Australia, and the consequent high cost of conducting research, particularly in remote areas. Much of the State is sparsely populated, the distribution of plant and animal species is poorly known and the conservation reserve system in Western Australia is not yet considered comprehensive, adequate or representative (CALM, no date [a]:3).

Organisational goals may be achieved directly through Landscape Expeditions operations. However, for the trips to continue to operate they must also, at least partially, satisfy participant, researcher and field crew goals. The distinction is important although overlaps may exist. For instance, participant goals such as the opportunity to take unique photographs, or visit remote areas, may not be of direct importance to the organisation.
and its corporate goals. But these are indirectly important, as achievement of participant goals allows the organisation to achieve high sales, high client satisfaction and hopefully their own corporate goals through public participation in that trip and future trips. Increasing the return rates of participants is a goal of the operational staff. A limited marketing budget and a desire to fill trips for financial reasons, makes return participants desirable. Achievement of the goals of the field crews helps ensure long-term sustainability of the program by providing a continual supply of trip proposals, and researchers willing to be involved in this type of trip.

Within the CALM Corporate Plan 2002-2005 four strategic directions, objectives and strategies were stated: conserving biodiversity, creating sustainable community benefits, maintaining community involvement and support, and improving the way we do business (CALM, 2002:3). The Landscape Expeditions program is a minor part of CALM’s operations. It was not explicitly mentioned in the Corporate Plan or in recent Annual Reports. The Departmental mission statement and strategies were too broad for the purposes of this research and the Landscape Expeditions program does not have its own mission or goals. Instead, the published material written by CALM about the Landscape Expeditions trips was used to indicate primary operational goals. Organisation staff stated the Landscape Expeditions program is:

an initiative that helps CALM achieve its principal mission: In partnership with the community we conserve Western Australia’s biodiversity, and manage the lands and waters entrusted to us, for their intrinsic values and for the appreciation and benefit of present and future generations (Kenneally & Paton, 2004:4).

A principal goal of Landscape Expeditions is to support CALM research projects. ‘Most expeditions take place in remote parts of Western Australia – areas where research is expensive to conduct and where volunteer’s financial and labour contributions allow scientists to stretch scarce research dollars’ (Kenneally & Paton, 2002:2). Trips also help ‘scientists get to grips with questions before lasting harm is done’ to the environment (Kenneally & Paton, 2002:3). Western Australia covers a vast area (over 2.5 million square kilometres) with highly diverse flora and fauna. Many areas had received little research attention due to the large distances and small community populations. For these
reasons, Landscape Expeditions is particularly important as a means of overcoming the expense and difficulty of funding field research. By 2004, cumulated total income was $1.53m and 72% had directly been used to fund field research (Kenneally, 2005). In addition, Landscape Expedition volunteers contributed physically to achieving tasks. Landscape Expeditions trips have also been used as guaranteed core seed funds for larger projects. For instance, the 80 Mile Beach project run in 1999, and the Roebuck Bay trip run in 2002, in the Kimberley region, used local communities, pearl industry funding, a lottery grant, and university students as well as Landscape Expeditions volunteers to achieve specific project goals.

Broader goals were acknowledged by operational staff in the organisation. Trips have gained considerable media coverage that helps with marketing, as well as public awareness of the role and work of CALM. The education of participants and the wider community is seen as an important component of the trips although the extent education is a primary or secondary goal, was not clear. The organisers stated that a goal of the expeditions is to deliver first class interpretation in order to inform clients and create meaningful experiences in the field, and to ‘value add’ by publishing material that promoted conservation and supported nature-based tourism activities (Kenneally & Paton, 2004:4). The Procedures and Operational Manual for Expedition Leaders noted a further outcome. These expeditions allow a CALM presence and face-to-face discussions with local communities in areas CALM officers rarely visit, so the trips were seen as supporting the wider public relations role of CALM (CALM, no date [a]:13). Research conducted during trips has also contributed to a number of CALM publications that are used by community members and tour operators.

Landscape Expeditions marketing material stated the trips aim to promote ‘community awareness in a variety of ways, including educational travel’ (CALM, 2001:5) and that the trips provide ‘research to protect the environment’ and ‘promote wider cooperation in addressing conservation and land management challenges in Western Australia’ (CALM, 2001:5).
Writing about Landscope Expeditions, Webb noted that as a land management organisation and park manager, CALM was required to manage for both conservation and recreation and ‘land management organisations are being asked to function more like commercial businesses offering a product (recreation and leisure opportunities in the natural environment) to customers (visitors) in order to achieve both conservation and revenue goals’ (Webb, 2002:149).

6.2.4 Reasons why participants may join Landscope Expeditions – an organisational view

The Procedures and Operational Manual for Expedition Leaders outlines desired participant outcomes. It was unclear to what extent these are direct organisational goals or are seen as a means of fulfilling participant satisfaction and, therefore indirectly, organisational goals.

Volunteers should expect to return home with a broader understanding of the natural world, the role of scientific methods, the value of nature conservation and the rewards of knowing that they have contributed to pioneering studies in remote areas. Landscope Expeditions aim to whet their appetite for nature, to give them a taste of scientific discovery, and to provide an experience that may not otherwise be a part of their lives (CALM, no date [a]:4).

Landscope Expeditions was designed in response to a community demand for people within their state to become involved with biodiversity conservation and work with scientists and for ‘small-scale, specialist, sustainable tourism experiences ... [that cater for] ... people interested in the preservation, encouragement and promotion of biodiversity’ (Kenneally & Paton, 2002:4) and ‘unique photo opportunities and the chance to see and handle unusual animals’ (CALM, 2001:5). Volunteers ‘benefit by visiting remote and unusual destinations and experiencing close encounters with wildlife’ (Kenneally & Paton, 2002:2) and join to ‘gain a broader understanding of the natural world, the role of scientific methods and the value of nature conservation’ (Kenneally & Paton, 2002:3).
Those who seek out Landscope Expeditions are typically active, intellectually curious, and socially and ecologically aware. They are looking for depth of experience, not just covering territory and collecting notches on a suitcase handle. In fact, some expeditioners go back to the same destination over and over again. They care deeply about that particular place and the plants and animals that live there (Kenneally & Paton, 2002:5).

These environmental experiences engage the ‘whole’ person in ‘body, mind and spirit’ (Kenneally & Paton, 2002:7) and allow people to ‘extend their personal boundaries in the process’ (Kenneally & Paton, 2002:7). Landscape Expeditions has mostly attracted older people but ‘some young people who participated in early expeditions now have careers in nature conservation’ (Kenneally & Paton, 2002:5).

6.2.5 Reasons why members of the field crews may join Landscape Expeditions - an organisational view

When the Landscope Expeditions program began, CALM scientists had to be encouraged to identify research needs and lead trips as the benefits of public participation in departmental research were not well understood by the scientists. Limited departmental research budgets meant scientists may not have been able to gain funding to visit a remote research site, or conduct specific field work. The financial support for field work provided by a Landscope Expeditions trip was seen as the key attractor for scientists. Because of the logistical aspects of running a trip with volunteers, the organisation informed prospective leaders of the potential setbacks and benefits involved with public participation. Some research tasks are slowed down due to the need for close supervision of inexpert volunteers, however, in some instances, extra pairs of hands and eyes meant far more could be achieved in a limited time frame. Although the financial incentive was usually the primary reason for a scientist becoming involved with Landscape Expeditions, after running several trips additional benefits were often recognised. Long-term friendships developed between scientist and volunteers (Kenneally & Paton, 2002:7), and the importance of intangible benefits was commented on by scientist Stephen van Leeuwin (in Kenneally & Paton, 2002:6), who had led four trips:
Sharing your knowledge with interested participants is very rewarding, and that's the biggest thrill for me. Many of their questions are quite challenging and I enjoy the intellectual stimulation. I like to think they go home with a far better understanding of nature and conservation issues, which they can then share with the wider community.

**6.2.6 Discussion - Landscape Expeditions**

Trips have operated since 1992, largely unchanged and organisation staff considered the trips were achieving their goals and providing desired benefits for the organisation. Overall, staff were satisfied with the outcomes of the program.

The key organisational goal was to raise funds for research, particularly in remote areas. The ability to access alternative funding was seen as the main attractor for scientists and the altruistic aspect of being able to directly support conservation was evident in the marketing to potential participants. The need to access volunteer labour did not appear to be a key goal for the organisation or scientists but the ability to become involved in research in their own state was seen as an important attractor for volunteers.

Educational aspects such as raising environmental awareness were the second key reason for operating the trips. For some researchers, the ability to impart knowledge was a rewarding aspect of the trips. Organisation staff considered participants are already interested in biodiversity, in contributing to pioneering studies in the Australian outback and often already knowledgeable about the area prior to visiting. Participants are curious people who care and the trip experiences will instil a broader understanding of the natural world, scientific method, value of conservation, and provide them with new experiences. Education and learning are the key reasons participants join trips.

Enhancing community partnerships was a lesser operational goal. The trips allow researchers access to remote areas to discuss issues directly with local communities. The involvement of members of the public directly in the trips also helps enhance community partnerships.
Other goals at the organisational level aim to achieve participant satisfaction to ensure word-of-mouth marketing and increase return rates. Successful trips, from both participant and scientist viewpoints, will help ensure key organisational goals are achieved. The long-term viability of the program can be sustained partly by providing unusual specialist trips that fulfil many aspects of educational and sustainable tourism. Participation in these hands-on, collaborative research projects is regarded as allowing participants to access areas they rarely have the opportunity to visit, undertake activities not usually available to them, and involve members of the public in conservation and long term management challenges.

6.3 Earthwatch Institute (Australia)
The organisation's founding and early years were described in Section 4.4.2. Since Earthwatch started in 1971, they have grown substantially, increasingly focussed on environmental research as a trip subject (described in Section 4.5.4), and introduced a range of alternative types of trips (discussed in Section 4.5.12). The organisation's operations in Australia were briefly described in Section 5.4.5 and are expanded here. Not all operations conducted by Earthwatch Institute (Australia) are outlined here, only the aspects of the organisation relevant to this study of the PERT sub-segment.

Additional detail on the methodology used to obtain data is described in Section 6.3.1, and the Australian program, its historical development, range of projects, and size of the program are described in Section 6.3.2, allowing the subsequent research on trips in 2003 to be placed in context. Relevant operational aspects are in Section 6.3.3, Earthwatch Australia's goals are identified in Section 6.3.4, the organisational perspective concerning the reasons participants (Section 6.3.5) and members of the field crews (Section 6.3.6) joined Earthwatch trips. The results are discussed in Section 6.3.7.

6.3.1 Method
Previous research on Earthwatch was discussed briefly in Chapter 2 and was used as source material in this section to develop an understanding of the organisation's operations. Relevant research included Gilmour and Saunders (1995) description of the
program, and a project operating in Western Australia. Weiler, Richins and Markwell (1993) and Weiler and Richins (1995) used data from a 1991 survey conducted on Australian participants, and non-participant members, and described profiles of Earthwatch members. Newman, Buesching and Macdonald (2003) examined the validity of volunteer data on a small mammal site in the United Kingdom. Russell (1995) and Russell and Ankenman (1996) examined participants on two trips at an orang-utan rehabilitation site in Indonesia. Hartman (1997) examined the communications between Principal Investigators (the term used within Earthwatch to indicate the key researcher), and the volunteers. In addition, a number of journalist articles were used (Basinger, 1998; Betts, 1993; Bogo, 1999; Green, 1994; Isaacson, 1999; Linden, 1990; Robinson, 2003).

The Earthwatch Institute produces considerable material concerning its activities. Much of this was available on their website, which is over a 1,000 pages (Earthwatch Institute, n.d. [b]). Additional information concerning the organisation was obtained between 2001 and 2004. The Melbourne office was visited on two occasions to interview staff and collect information, including secondary data. The volunteer coordinator was interviewed face-to-face on an additional occasion and during data collection, monthly or more frequently discussions were held with Earthwatch staff, via email or telephone.

6.3.2 Range of operations
The global search described in Chapter 4, and undertaken in 2001, indicated Earthwatch is the largest organisation within the PERT sub-segment and one of the earliest to start operating. While Earthwatch's development focussed on its volunteer program, and this remains the key function of the organisation, they also conduct other activities that contribute to their mission statement, such as a global classroom that uses the Internet to bring field trip information to teachers, a public outreach program of alumni volunteers, a worldwide membership base of around 28,000, sponsorship of conservation workers, teachers and students, and community development projects (Small et al., 1999). The Australian office had been active in obtaining corporate sponsorship, but sponsored participants were excluded from this research as they were outside the PERT definition.
developed in Chapter 4. The implications of this on data collection were described in Section 3.10.4.

The Australian office, in Melbourne works 'to expand support for field research in Australia and the Asia-Pacific region and to increase the number of volunteers and fellows joining projects in Australia and New Zealand' (Earthwatch Institute, n.d.[e]). It is registered under the CSIRO as a scientific research institute and although Australian volunteers cannot deduct the cost of trips for tax purposes, as they could if they were a United States resident, donations are tax deductible in Australia.

Raw data concerning Australian grants approved each year were aggregated and Table 6.1 shows that the number of projects, volunteers and grant funds allocated in Australia varies from year to year. These figures only include projects operating in Australia rather than all those overseen by the Australian office (for instance, Malaysia or New Zealand projects are omitted). The information was compiled from several sources within Earthwatch and contributions listed in U.S. dollars have been adjusted to Australian dollars using an annual averaged exchange rate. Eighty two per cent of the projects in Table 6.1 were within the PERT sub-segment and the research focus of the trips, compared with the global results calculated in Chapter 4, revealed Australian Earthwatch trips focussed less on marine mammals and turtles and more on terrestrial mammals (although the difference in time periods limits this comparison).
Table 6.1 Number of Australian Earthwatch projects, volunteers and Earthwatch funding allocated annually

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<th>Year</th>
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<th>No. of volunteers</th>
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</tbody>
</table>

(a) total for 1993-2003 only.

In 2001, Earthwatch developed the Conservation Research Initiative and established five Research Centers around the world to work on exceptional areas with threatened biological diversity. A series of scientists, with different research foci, are able to examine a range of issues at each site. It began as a five year, US$5m funded program, sponsored by the Ford Motor Company (Earthwatch Institute, n.d. [b]). One site within Australia, operating from the Atherton Tropical Forest Research Centre, was chosen and focuses on the catchment areas of the Barron and Daintree Rivers in Queensland. One Earthwatch project operated from this site in 2003, and three in 2004.
6.3.3 Relevant operational aspects

Earthwatch encourages doctoral, post-doctoral researchers or equivalents, who require funding or field labour, to apply for Earthwatch assistance. An Australian Scientific Advisory Committee is involved in the assessment process, but all applications are assessed centrally in the United States. Scientists can request Earthwatch funding for different periods of time, for different numbers of trips per year, and varying numbers of participants per trip, depending on research requirements. Despite this, there is considerable consistency between Earthwatch trips, aiding potential volunteer applicants as well as potential scientist’s understanding of feasible logistics. Project leaders, known as Principal Investigators, are usually a member of the field crews.

The website application area for potential scientists states a project usually involves ‘20 to 60 total volunteers per field season, with 5 to 12 volunteers each on 4 to 5 teams throughout the year. Each team typically spends 8 to 15 days in the field. Shorter and longer teams are encouraged as appropriate’ (Earthwatch Institute, n.d.[d]:no page). Grants are made on a per capita basis for each Earthwatch volunteer and average US$800, while the average project grant ranges from $16,000 to $48,000 per season. Grants can be used to cover costs of the volunteers and research staff in the field, and other project expenses, but cannot be used to pay Principal Investigator salaries, capital equipment or overhead costs. Grants are reviewed annually and renewed, provided the project has been successful scientifically, logistically and financially. Long-term projects are encouraged and 25% of the projects have been supported for more than five years (Earthwatch Institute, n.d.[d]) and 10% of successful projects have been supported for over 10 years (Earthwatch Institute, n.d. [b]).

Potential participants can examine the range of upcoming trips via the website, or in Earthwatch’s quarterly magazine (Earthwatch Institute, 2003c). After signing up for a trip, participants are sent an expedition brief (usually 25-50 pages) containing information covering the history of the expedition, its research mission, backgrounds of the researcher and field staff, the expedition goals, field logistics and travel data. Briefs
can also be accessed via the website. Participants are also encouraged to contact past participants for information.

The minimum age for participants is 16. The application area for potential scientists describes ‘a typical participant profile’ (Earthwatch Institute, n.d.[d]) as 16 to 85 years of age, college educated, 40% have a graduate degree and are English-speaking. Appendix 1 shows variations exist concerning Earthwatch participant profiles, and Russell (1995) suggested profiles altered between types of projects, but profiles may also alter between locations and over time. The reasons for the profile differences are not yet known and may be, at least partly, due to methodological differences. For instance, Weiler and Richins (1995:33) examined Australian Earthwatch participants from 1988-1991. Overseas people who joined an Australian trip were excluded from the study, as it focussed on Australian residents only. Yet, research on a Western Australian Earthwatch project, using data collated from 1988 to 1994, revealed nearly 76% of its volunteers were from the United States and less than 20% were Australian residents (Gilmour & Saunders, 1995:631). The literature review and analysis in Chapter 4 indicated the PERT sub-segment was reasonably dynamic, so more detailed data would be needed to clarify the reasons for noted variations in profiles.

Trips varied in price, and globally, during 2003, ranged between US$700-$3,500 and averaged $1800 for a one to three week trip (Earthwatch Institute, n.d. [b]). Cost of travel to the departure point is not included. The Australian trips included in this research varied from US$1,390 for a seven day trip (US$199 per day) to US$2,160 for a 14 day trip (US$154 per day) (Earthwatch Institute, 2003c). In the 2003 Annual Report (Earthwatch Institute, 2003a:16), volunteers globally contributed 37% (almost US$6m) of the organisation’s income and for the Australian office this rose to 47% (Earthwatch Institute, 2003e). Globally all volunteer payments to join a trip are used to ‘support research and exploration funded by Earthwatch’ (Earthwatch Institute, 2004a:no page), but costs are balanced across projects, allowing some projects that would not be self-supporting to be financed. Depending on team size, approximately ‘50% goes to field costs; 34% to advance planning, reconnaissance, team recruitment and logistical
support; and 16% is used for administrative support, communications, and postal
expedition follow-up' (Earthwatch Institute, 2004a:no page). Earthwatch Europe
described the distribution of volunteer funds differently and stated that 56% went to the
Principal Investigator as a field grant, 4% was spent on administration and overheads,
14% on international support services including liability insurance, 18% on the direct
costs of recruiting and briefing volunteers and 8% on the scientific review and appraisal
process (Earthwatch Institute, 2000). No specific figures were published for Australia.

6.3.4 Organisational goals - Earthwatch Australia
Earthwatch’s global mission statement is ‘Earthwatch Institute engages people
worldwide in scientific field research and education to promote the understanding and
action necessary for a sustainable environment’ {Earthwatch Institute, no date [g]:no
page}. The mission statement has altered slightly over the years, and prior to 2002 the
mission was to ‘promote sustainable conservation of our natural resources and cultural
heritage by creating partnerships between scientists, educators and the general public’
(Earthwatch Institute, n.d. [c]:no page) and had three areas of focus: research,
conservation and education. The 2002 Annual Report added ‘businesses’ to the
partnerships (Earthwatch Institute, 2002:3). In the 2003 Annual Report, the Chairman of
the Board, Meserve, stated:

‘this year we recast our mission to more clearly emphasize environmental
sustainability and to reach out to a more diverse group of participants. Going
forward, Earthwatch will emphasize the field research, education and public
engagement that will deliver on our global vision for a sustainable Earth
(Earthwatch Institute, 2003a:2).

The strategic planning done in 2003 is reshaping the organisation and according to
Bergen, President and CEO:

Looking back, we have done a great job of supporting scientists doing fieldwork
and getting people into the field to support the scientists. What we need now is to
concentrate our efforts on getting local communities, researchers, corporations,
teachers and students involved in these projects...the United Nations has declared
the decade of 2005-2014 as the Decade of Education for Sustainable
Development. In our strategic planning process, we aligned our goals with those
set forth in the United Nations Millennium Development Goals (Earthwatch
Institute, 2003a:3).
This realignment of goals was also evident within Australia. Earthwatch Australia’s objective, in 2000, was ‘to expand support for field research in Australia and the Asia-Pacific region and to increase the number of volunteers and fellows joining projects in Australia and New Zealand’ (Earthwatch Institute, n.d.[e]). In 2004, this had altered to ‘to expand support for field research in Australia and the Asia-Pacific region and promote increased public awareness of scientific research and conservation through participation in Earthwatch programs’ (Earthwatch Institute, 2004b).

6.3.5 Reasons why participants may join Earthwatch – an organisational view

The Earthwatch website contains a section for potential participants titled ‘frequently asked questions’ stating:

Earthwatch expeditions are not tours, not ecotourism, not adventure travel. Earthwatch expeditions are short-term volunteer opportunities directly assisting scientists in their field research. In some cases, you will be working in areas inaccessible to tourists; pristine regions that only researchers are allowed to enter’ (Earthwatch Institute, 2004a:no page).

The website also states that the conditions and aspects of different trips can vary enormously but the:

intense hands-on connection you get with your site will give you an appreciation of the Earth’s richness and quiet majesty that no guard railed vista can match. But it’s more than just the physical place. On an Earthwatch project you have a one-on-one contact with the local people that no tourist will ever have (Earthwatch Institute, 2004a:no page).

Participants are taught any necessary skills so no prior special skills are needed. Some free time is provided within each trip for sightseeing or rest, and the ability to get close-up to photograph species is emphasised. Despite creating a distinction between tourism and Earthwatch trips, Earthwatch Institute also stated their volunteers provide funding for scientists that would not otherwise be available as ‘this is money which has normally been put aside for holiday expenditure, and would not normally be given to charity. It therefore represents new money for conservation.’ (Earthwatch Institute, 2000:9).
6.3.6 Reasons why members of the field crews may join Earthwatch – an organisational view

A section of the Earthwatch website is dedicated to providing information for potential research applicants (Earthwatch Institute, n.d.[d]). The provision of funding allowing field data collection to be undertaken, described in Section 6.3.3, is considered a key outcome for researchers. In addition, the same section of the website describes volunteers as people who are able to greatly increase the data gathering capacity of field research projects, and as people:

- willing to donate time, money and services to scientific field research;
- committed to becoming involved in identifying solutions to scientific, environmental and cultural questions and issues; and
- many [of whom] take their research and conservation experience back to the workplace and integrate the knowledge they have gained in their business and other activities (Earthwatch Institute, n.d.[d]:no page).

Volunteers have on numerous occasions also had specific professional expertise enabling them to make substantial additional contributions to projects. The website section for researchers contains a page of comments from Principal Investigators stating reasons for their participation, or continued participation, with Earthwatch. The quotes selected highlight the educational rewards, the critical reviewing of their own work due to volunteer questions, the flow-on effect to field staff of volunteer enthusiasm and motivation, the ability of these types of trips to change people’s lives, and the advantages of a potential long-term grant structure over short-term research grants.

6.3.7 Discussion - Earthwatch Institute (Australia)

Globally Earthwatch has produced large amounts of material describing their operations and slight adjustments in the organisational goals have been clearly outlined. Both researchers and volunteers need to be attracted to the organisation and then matched for Earthwatch to successfully achieve its own goals. Earthwatch staff produce marketing material advocating the benefits researchers and volunteers will receive if they join an Earthwatch trip. The marketing material presumably outlines the benefits that are believed will sell, appeal, or work to attract researchers and volunteers to the organisation. It could be inferred that these are the reasons why the organisation’s staff believe researchers and volunteers get involved. However, some benefits of participation
may be less attractive in a marketing sense (such as to gain confidence for volunteers, or improve interpersonal skills for members of field crews) and may not be emphasised in the organisational marketing literature.

Financial benefits are used as the key inducement for researchers to get involved as well as the provision of willing labour for people-intensive projects. The organisation was started because of the appreciation of the difficulties some researchers had in obtaining support (see Section 4.4.1). Although not all researchers require, or are offered, long-term support, Earthwatch material aimed at potential research applicants also emphasises the opportunity to gain long-term grants. Broader benefits, such as the skill range of volunteers are also mentioned.

Aspects used to attract volunteers overlap with tourism (for instance, get to visit amazing places, meet local people, appreciation of new sights) but Earthwatch material clearly differentiates itself from tourism, indicating its trips will be better (or provide more) than a tourist trip. In addition, the learning of new skills and altruistic aspect of helping with research are emphasised.

6.4 Naturewise - Conservation Volunteers Australia, CVA

A description of the operations of CVA and its development of the Naturewise program was briefly given in Section 5.4.1. A more detailed examination of the operations is discussed here. The specific methodology used to obtain data is presented in Section 6.4.1. The relevant operational aspects are described in Section 6.4.2, the goals for the organisation in Section 6.4.3, followed by staff views concerning why participants (Section 6.4.4) and members of field crews (Section 6.4.5) join. The results are discussed in Section 6.4.6.

6.4.1 Method

CVA is the largest conservation volunteer organisation in Australia and started in 1982. The Naturewise program was developed in 2001. Most available information concerning operations relates to the whole organisation, CVA, not to Naturewise. To develop an
understanding of why a new type of program, Naturewise, was developed by CVA, the organisation's website and published information were examined, the Naturewise Australian manager was interviewed face-to-face on three occasions and discussions were continued via email. Two state managers of CVA were also informally interviewed face-to-face. A paper written by the Naturewise Australian manager (Davies, 2001) was also used.

6.4.2 Relevant operational aspects
As a non-profit organisation, CVA sought new income-generating opportunities that would contribute to its conservation programs and the organisation. A new business to run ecotours, Naturewise, was established. Three program styles were envisaged, each targeting a different market. Naturewise Adventures involved backpacking in remote areas and helping with conservation activities. Naturewise Journeys involved accommodation at ecolodges, homesteads, and bed and breakfasts, while Naturewise Discoveries involved active participation in research. The programs would run throughout the year across most States and Territories within Australia, giving Naturewise an economy of scale as a fully professional ecotourism business and providing a steady stream of income back to CVA (Davies, 2001:7). Naturewise Discoveries were within the PERT sub-segment, but despite the intention to have separate program types within Naturewise, after further program development, the concept was altered to consist of one product brand, Naturewise (Davies, 2004[b]).

Because the program is relatively new, existing material on the program, or volunteer numbers per year, are not extensive. For the financial year 2002/03, 181 participants had joined Naturewise trips and this increased to 491 for 2003/04. Most of these participants were not within the PERT sub-segment however, as group programs, such as overseas university student trips, were also conducted. Four regular tours had been developed by the 2004/05 season and group programs also operated.

Team size is usually between 4-10 participants and up to 50% of participant’s time during a trip is spent on conservation project work, usually research or monitoring
Participants must be aged between 18 and 70 years, although younger participants may join some programs subject to approval by CVA.

6.4.3 Organisational goals - Naturewise
Although CVA has been very successful at attracting volunteers, these tend to be young, particularly international visitors. International volunteers are also seasonal. Through Naturewise, CVA would be able to reach new audiences and so further the goal of creating conservation volunteers and inspiring people to actively care for the Australian environment. The key objectives (Davies, 2001:7) for establishing Naturewise were to:

- develop a regular new stream of income for reinvestment into CVA programs and operations;
- broaden the age groups that participated currently in CVA programs beyond the 15-28 year old group that CVA already catered for well, particularly targeting the baby-boomer and working professional market (30 – 55 years of age);
- generate additional volunteers for core conservation volunteer programs;
- increase the profile of CVA and its programs; and
- provide expanded employment opportunities, and skill base for CVA staff.
In addition, providing new ways for people to become engaged in conservation and the environment and new partnership opportunities were also relevant (Davies, 2004[b]).

6.4.4 Reasons why participants may join Naturewise – an organisational view
Website material marketing the Naturewise Discovery trips describe them as providing the opportunity to ‘experience some of our most amazing wilderness areas and contribute to significant conservation research projects while feeling like you are on a holiday’ (Conservation Volunteers Australia, 2002). Davies (2004[b]) stated the product’s key role is to ‘enable participants to make a real and lasting difference to conservation’ and the programs provide:

- the opportunity to visit unique areas of environmental significance and experience something new;
• an intimate experience in the natural and cultural environment;
• a unique learning experience transferring quality and accurate interpretation to visitors;
• attractive travel opportunities, many off the main tourist routes;
• support for, and involvement with local communities;
• an ecologically sustainable experience; and
• profits reinvested to offer more opportunities for volunteer-based conservation projects throughout Australia.

6.4.5 Reasons why members of field crews may join Naturewise – an organisational view

Limited information exists indicating the organisational view concerning why members of field crews or researchers may choose to become involved with the new research-style program of CVA. However, the financial contribution made to the researcher (or their organisation), the work outputs achieved, and the access to tourism expertise, including product development and worldwide marketing aspects, were considered the key reasons (Davies, 2004[b]). CVA is already well-known within Australia as a major provider of conservation volunteers. Section 5.4.1 showed that the scale of their work within Australia and Section 5.4.15 discussed three examples where different types of volunteer tourists had been used at a single site, and all had included CVA volunteers.

6.4.6 Discussion - Naturewise

Clear goals for the start-up of the new program, Naturewise, were available. Although the Naturewise Discovery product did not develop as a separate entity, as originally envisaged, this was partly due to the success of other options being concurrently explored and Naturewise is continuing to expand in 2004/05. The program was established to provide an income stream to CVA and introduce a greater diversity of people to CVA operations and to conservation volunteering. The program is still young, but appears to be achieving these goals.
6.5 Comparison of the Three Organisations

Distinct differences are apparent between the organisations. Landscope Expeditions trips are operated by scientists within their own organisation. Both Earthwatch and Naturewise trips operate using partnerships with scientists or researchers external to that organisation. Despite this difference, financial aspects appear to be the key reason the programs were started within each organisation.

Landscope Expeditions trips were started to provide a way to finance research trips, particularly those to remote sites. Any remaining funds were returned to the research team to fund further work. Naturewise was principally started as a means of providing a steady income to its parent company, CVA, to support conservation, but not necessarily research. The ability to finance researchers was also a key reason why Earthwatch started, but equal emphasis was placed on Earthwatch trips being a source of willing volunteers for researchers with labour-intensive programs.

The development of PERT trips to provide a source of volunteers for researchers was not a reason Naturewise was developed. It was mentioned as relevant in Landscope Expeditions material, but was not a key reason the trips were started (or still operate). The operational aspects of Earthwatch trips and descriptions concerning volunteer involvement and work outputs support the stated greater emphasis on the provision of a labour pool. For instance, on Earthwatch trips, little time is permitted for other activities (such as sight-seeing) and considerable emphasis is placed on the training and repetitive nature of the tasks to help produce results. In contrast, some Naturewise trips show a greater diversity in approach than either Earthwatch or Landscope Expeditions. For instance, the Tasmanian ecotour trip tours a considerable part of the State, volunteers participate in small amounts of several different types of unrelated research, and the trips integrate holiday time and survey work to a larger extent than either of the other organisations.

Financial reasons for operating in the PERT sub-segment are critical within all three organisations, but not the sole focus for any of these organisations, as Table 6.2
Education of participants and the wider public is a key goal of Landscope Expeditions trips. As most field crew work for the organisation, education concerning the work of CALM is also emphasised. Marketing material describes the learning and high level interpretation from specialists that participants receive. Education was one of the three key goals of Earthwatch. As well as the learning that volunteers gain from participating, Earthwatch also strongly emphasises the new skills that can be gained. The satisfaction felt by researchers after educating the public about their own work is also mentioned within material from both organisations. While education is not specifically mentioned in Naturewise documentation, the creation of a new pool of conservation volunteers is a program goal and to achieve this education concerning conservation and the continued need for volunteers is necessary.

Both Landscope Expeditions and Earthwatch material noted the trips help create partnerships to ensure conservation. Most Landscope Expeditions participants travel within their own state and this is considered as fostering further partnerships with the public. Access to remote landowners and communities is also noted as a trip outcome. Earthwatch trips attract researchers from various other organisations and consequently the partnerships are slightly different. In addition, the changing mission of Earthwatch places increased emphasis on business involvement, local communities and engendering support and enhancing learning through school participation.

### Table 6.2 Comparison of main reasons the selected organisations operated in the PERT sub-segment (bold indicates a key reason)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Landscope Expeditions</th>
<th>Earthwatch</th>
<th>CVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance research trips</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Income to parent company</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Provide volunteer pool</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create partnerships in conservation</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

Marketing material used by each of the three organisations to attract volunteers contains many similar elements. The benefits described for volunteers overlap with those used to advertise a specialist ecotour, such as unique photographic opportunities, chance to see and handle unusual animals, visit inaccessible places, gain first class interpretation, and
meet local people. Each organisation’s marketing also emphasises the altruistic aspects of helping research and conservation. It is inferred that the trips provide everything a specialist ecotour offers, and more. For instance, Earthwatch material stated the learning of new skills as an additional aspect a participant would gain. Earthwatch trips were clearly differentiated from other forms of tourism, both in a legal sense and in marketing, and so the organisation differentiates itself in the marketplace.

Chapter 9 compares the goals and benefits derived at the organisational level, with the goals and benefits of the participants and members of field crews. Staff discussions noted the achievement of organisational goals was dependent on the ability to attract both researchers and volunteers and some inter-dependence is likely. The socio-demographic profiles of the participants can also alter trip outcomes and this is discussed further in Chapters 8 and 9.

6.6 Summary
The three organisations were quite distinct in their structures, target markets and type of trip offered. For instance, Earthwatch Australia is part of a large international operation that attracts researchers from outside its own organisation and participants are both Australian and international. Alternatively, Landscope Expeditions is part of a state government department, almost all researchers are employees of the department and most participants come from the same state. Naturewise is a relatively recent program developed by an organisation focussing on conservation issues more than research.

Despite these differences, the organisational goals for operating PERT-style trips were quite similar with the key major reasons being financial benefits, supporting research or conservation and education. These were also similar to those reasons identified globally within Chapter 4. However, the approaches used to attain these goals varied amongst the organisations. Staff within the organisations also recognised that the goals of field crews and participants must be at least partially achieved to ensure long-term supply and demand exist and therefore organisational goals are met. The results from this chapter
are combined with the results in Chapters 7 and 8, allowing a discussion of the inter-
relationships between benefits in Chapter 9.