AN EVALUATION OF COASTAL TOURISM ACTIVITIES IN THE ANTARCTIC PENINSULA REGION

Thomas G. Bauer
Victoria University of Technology (Australia)

Abstract: The Antarctic Peninsula is the world's premier cruise destination and nearly all Antarctic tourism activities take place in the coastal zones of this ice-covered region. The paper outlines the mechanics of Antarctic cruises and discusses the interactions between Antarctic tourists and the Antarctic environment. Approximately 9,000 tourists, the highest number ever, visited Antarctica during the 1993-96 summer season aboard a variety of vessels. The visitors land at some 70 coastal sites (Stonehouse, 1994), encounter a great variety of Antarctic wildlife and view some of the most spectacular cold climate scenery in the world.

As tourist numbers have increased, the tourist-wildlife encounter has come under increasing scrutiny. Drawing on the literature as well as on personal observations of Antarctic tourism, the author challenges the notion that Antarctic tourism in its present form is a threat to Antarctic fauna and flora. Antarctic tourism is at present the most well-managed tourism in the world, but tourism operations could nevertheless be further improved if a more integrated approach to tourism management was taken.

The paper recommends that there should be better communication among Antarctic tour operators and among expedition leaders with regard to dates and times during which they plan to visit Antarctic wildlife sites. An improved coordination of itineraries would lead to avoidance of over-visitiation of certain sites and thus to a reduction in the potential for negative environmental impacts. Because of the "expedition" image of Antarctic cruises and the commercial interests of the various operators the proposed approach will not be easily achieved.

Keywords: Antarctica, tourism, environmental impacts, tour operators

Introduction

Antarctica is a continent the size of the United States and Mexico combined and has been variously described as the highest, driest, coldest and windiest of the continents. It is the world's last great wilderness where many areas have never been visited by humans while others have only rarely been set foot upon. Antarctica is also the last tourism frontier and as such, is in a class of its own. Remote, far removed from the population centers of the world, with no indigenous population, and with no scheduled transport to gain access, it can appear as distant as the moon. But unlike the moon, as yet out of reach of the pleasure seeking tourist, the coastal regions of Antarctica in particular the Antarctic Peninsula region, are accessible to paying passengers. Tourists are drawn to this last frontier for a variety of reasons including the scenic grandeur, the wildlife and historic events such as the explorations of Amundsen, Shackleton and Scott. The images created by the history of Antarctica are strong and vivid—they speak of heroic deeds, of sufferings, of glory and defeat and as such they are very human, spanning the spectrum of human endeavor and experience.

Background to Antarctica

Users and Visitors

Antarctic resources have been explored since shortly after Captain James Cook discovered South Georgia during his third voyage in 1775. His reports of the abundance of whales and seals drew whalers and sealers to the region which severely decimated existing stocks and drove species such as the blue whale to near extinction. Today commercial fishing carried out in the Southern Ocean provides the fish markets of the world with an abundance of fish, squid and krill. Furthermore, Antarctic icebergs have in the past been used to provide fresh water to the crews of exploring vessels. It also looked as though Antarctica may be subject to mineral exploitation and during the 1980's, the Antarctic Treaty Parties were negotiating for a Convention on the Regulation of Antarctic Mineral Resource Activities. This convention was never ratified and instead, in 1991, the Treaty Parties negotiated the Protocol on Environmental Protection to the Antarctic Treaty, more commonly known as the Madrid Protocol. Under the Madrid Protocol all human activities in Antarctica are subject to scrutiny via an environmental assessment program and all mining or mineral resource activities are banned indefinitely.

From the early days of human involvement in Antarctica, the biggest 'user' of Antarctic resources has been science. Since the International Geophysical Year in 1957-58, thousands of scientists have spent time unlocking the secrets of Antarctica for the benefit of humankind. Some of these developments include significant improvements in weather forecasting, the detection of the 'hole in the ozone layer' and developments relating to global warming. Antarctic scientists and their support staff occupy some 40 permanent, year-round bases in Antarctica. Headland (1994:279) estimated that their occupants account for 99.48% of all human impact on the continent. The other 0.52% are attributable to Antarctic tourists who visit mainly the coastal areas of the continent and its off-shore islands.
Cruise Tourism in Antarctica

Structure of the Industry

The Antarctic Peninsula is the world’s most remote and arguably most exotic cruise destination. Cruising is practised world-wide in places such as the Caribbean Islands, the Mediterranean and the South Pacific, with millions of passengers annually taking part in this activity. Antarctic cruising began on a regular basis in 1966 and it has been the most dominant form of tourism ever since. During the 1995-96 season a record number of some 9,000 (International Association of Antarctic Tour Operators estimate) passengers reached the Antarctic by ship. Antarctic cruise tourism is controlled by a relatively small number of major players. Antarctic tour operators have joined forces and in 1991, established the International Association of Antarctic Tour Operators (IAATO) as ‘a means of pooling resources and promoting thoughtful legislation that is compatible with the responsible tourism that operators have exhibited in their history’ (Splettstoesser and Folks, 1994:235). The major operators are Marine Expeditions (Canada), Quark Expeditions (USA) and Hanzatic Tours (Germany). These three companies basically control ship-borne Antarctic tourism by virtue of their access to ice-strengthened vessels suitable for Antarctic conditions. With the exception of Hanzatic Tours, which runs the up-market vessels Bremen and Hanseatic, most vessels operating regularly in Antarctica are of Russian or Estonian registry. This poses some interesting legal problems should one of these vessels get into difficulty or cause a marine emergency. Several Russian vessels for example, are owned by the Murmansk Shipping Company, chartered by a company based on the Isle of Man, and marketed through companies like Quark Expeditions who act as General Sales Agent and which, in turn, sub-lease these vessels to companies such as Mountain Travel Sobek, Zegrahm Expeditions, Adventure Associates or GMMS/World Expeditions.

The establishment of an industry driven tourism association with the main aim of preserving the resource on which the industry is based is fairly unique. It shows that the operators are serious about protecting their ‘golden egg’, resulting in a win-win-win situation. The visitor surveys conducted by this author indicate that tourists are highly satisfied with their Antarctic tourism experiences. At the same time, tour operators have a profitable business and the Antarctic environment is afforded protection. The underlying assumption used in this case study is that the current tour operators have acquired superior Antarctic operations experience, are prepared to subject themselves to their own code of conduct, as well as to follow the various recommendations and requirements under the Antarctic Treaty System. Several companies including Adventure Network International, Quark Expeditions and Marine Expeditions, have already carried out independent environmental impact assessments of their Antarctic operations. This will be standard procedure once the Madrid Protocol has been ratified.

The Mechanics of Antarctic Cruising

Cruise vessels can only reach Antarctica during the brief southern summer months of November to March. For departures to the Antarctic Peninsula, where over 95% of all tourism takes place, vessels leave mainly from the ports of Ushuaia (Argentina), Punta Arenas (Chile) and Port Stanley in the Falkland Islands. A limited number of departures to the Ross Sea and the Australian Antarctic Territory are also available from Hobart, Christchurch and Bluff. Cruises from South American ports are usually of ten-day duration with some lasting as long as 18 days. During a typical ten-day cruise, from Ushuaia to the Peninsula and back, passengers will only spend five days cruising the Peninsula region. The rest of the time is spent crossing and re-crossing Drake Passage, one of the roughest stretches of water in the world. Once the Peninsula has been reached, passengers undertake several landings a day using Zodihacs (inflatable craft). In contrast to other cruise destinations the Antarctic Peninsula region does not feature any tourism specific infrastructure. There are no jetty’s, wharves or piers that would facilitate landings. As a result, there are many so called ‘wet’ landings during which passengers are required to jump into several inches of icy water and wade ashore. Shore facilities such as boardwalks or marked paths do not exist. Shopping, one of the most popular past-times of cruise passengers in other cruise destinations, is limited to stamps, stickers, pins, T-shirts and sweat shirts at some of the scientific stations. The United States Palmer Station on Anvers Island has the best selection of souvenirs on which this author observed passengers spending hundreds of dollars.

While shore visits on cruises in other parts of the world often last for half a day or more, Antarctic shore visits last for only a few hours at a time. The duration of time spent ashore is directly proportional to the number of passengers, with passengers aboard ships such as the 400+ passenger Marco Polo spending the least time. Apart from a few inhabitants at scientific stations, tourists encounter no local population. Thus, the scenery and the wildlife at the shore sites visited provide the exclusive purpose for making landings. There are no pubs where tourists could down a few glasses of red to make up for a less than satisfactory shore experience. What they see is what they get and by all accounts they are happy with it.

Tourism Management in Antarctica

Tourism management in Antarctica differs from the management of tourism in all other locations for one major
reason: Antarctica is not in the domain of a single country, individual or corporation. Despite the existence of claims by seven countries (Australia, Argentina, Chile, France, Great Britain, New Zealand, Norway) to slices of varying size of the continent, there is no universal acceptance of these claims to ownership. Two of the most active participants in Antarctic explorations—Russia and the United States—neither lay claim nor do they accept claims. Antarctic affairs are controlled by the countries who are signatories to the Antarctic Treaty of 1959. The Antarctic Treaty System now encompasses recommendations regarding the protection of Antarctic wildlife including the Convention on the Conservation of Antarctic Living Resources, the Antarctic Seal Convention and the Madrid Protocol. Tourism specific recommendations have also been passed, in particular, Recommendation XVIII-1 which was adopted in Kyoto in 1994. In addition, tourists from any of the signatory countries are also subject to their countries' Antarctic legislation. The difficulty faced by the Treaty Parties in managing tourism is thus not so much the absence of rules/guidelines/recommendations, but the question of how these guidelines can be enforced in a region as remote as Antarctica.

Members of IAATO are also aiming to strengthen their commitment to Antarctic preservation and have developed common sense visitor guidelines, which as long as they are compiled with (and all indications including this author's observation of tourist conduct show that they are), will ensure the sustainable use of the Antarctic resource base for coastal, ship-based tourism. Essentially, these guidelines are those that would apply in any national park or protected area in the world and include: minimum distances from wildlife, no smoking and littering ashore, no souvenir hunting and no interference with science activities.

Carrying Capacity Issues

The issue of carrying capacity of tourist resources is one that is raised in many destinations, particularly, if they are natural attractions. Mathieson and Wall (1982:21) define it as: 'the maximum number of people who can use a site without an unacceptable alteration in the physical environment and without an unacceptable decline in the quality of the experience gained by visitors.' Psychological carrying capacity can be seen as the number of people who may be present at a site before the visitor perceives it to be crowded. Clearly this depends very much on the country of origin of the visitor and the respective population density. In the Antarctic context where small groups of 100 people maximum are allowed at any one site at any one time, the notion of psychological carrying capacity applies more to the fact that tourists show negative reactions when they spot another cruise ship in the area. This, to them, is an invasion of their private sphere of exclusivity—after all they have spent between $5,000 and $10,000 for the privilege of seeing Antarctica. At that price, they are not willing to share their experience with other tourists. The physical carrying capacity of landing sites in Antarctica is usually not a problem provided groups are kept to their current size.

The Tourist-Wildlife Encounter

Practically all animals encountered by Antarctic tourists are marine animals (penguins, seals and flying sea birds). Thus, they only come ashore to court, mate, breed and raise their young. No fully conclusive study as to the susceptibility to disturbance of the various kinds of wildlife has been carried out but there are at least two studies that can provide an indication. With regard to the alleged decline in penguin numbers attributed to the presence of tourists Fraser, an Antarctic scientist with a long record of Antarctic research states:

"...it is known that penguin populations on the Antarctic Peninsula have been in a state of flux, increasing or decreasing, since at least 1945, and that these changes have been species specific; that is, some species, such as Adelie Penguins, have been decreasing whereas others, such as Chinstrap Penguins have been increasing. This is the natural pattern of variation... According to our long-term data, however, the environmentalist claims cannot be supported, in that changes in the populations of the area's penguins have exactly matched those evident for the Peninsula as a whole... In short, there is simply no evidence to support a direct causal link between tourist visits and population changes in penguins (undated:2).

Nimon, Schroter and Stonehouse add to this observation that well-controlled tourists pose only marginal threats to local penguin populations. After studying visitor—Gentoo penguin interaction on Cuverville Island they found:

"We conclude that the reactions of nesting penguins to visiting humans depend on the visitors' behavior, and the presence of a well-behaved visitor changes, only momentarily if at all, the awareness of a penguin with no prior, adverse experience of humans. Thus, efforts by tour operators, Antarctic Treaty authorities and others to encourage non-disruptive behavior in visitors are not misplaced" (1995:415).

Penguins do not seem to be at risk from tourists but with regard to petrels, in particular the wandering albatross, the situation is different. Because of the relatively small populations of these birds stricter guidelines as to the how and when these birds can be visited should be developed and implemented if disturbance is to be kept to a minimum.
Impacts of Antarctic Cruises

A number of negative impacts have been attributed to visiting Antarctic tourism. As Hal (1992:5) points out, "undoubtedly, the most serious concerns surrounding tourism in Antarctica are focused on the potential impacts of tourism on the fragile Antarctic environment." In line with most other authors he identifies the environmental impacts of ship-based tourism as 'Transient environmental effects, although pressure may be placed on regularly visited attractions; oil spills; disturbance to wildlife; potential introduction of bird and plant diseases; and the introduction of exotic flora' (1992:6). In contrast to academic authors, writers in the popular press suffer from what the author has termed 'Antarrophobia' (Bauer, forthcoming 1996), the fear of the Antarctic tourist. Many of these writers exaggerate the problems associated with Antarctic tourism and in their haste to condemn Antarctic tourists, overlook some of the facts about Antarctica which include the size of the continent (14.2 million sq. km of which humans use only 0.0003%) and the profusion of most species of Antarctic wildlife. There are, for example, millions of King, chinstrap and Adélie penguins as well as several million seals in Antarctica. Only a very small proportion of these will ever come within sight of tourists. This abundance of wildlife indicates that unlike, in the Galapagos Islands for example, numbers of Antarctic wildlife are high (with the exception of a few species of petrels and terns on the sub-Antarctic Islands) and that there is little danger of extinction through tourist activities. Possibly because the public is in general not well informed about the region, Antarctica has developed a mystique which, at times, seems to make rational debate about the encounter between humans and wildlife impossible.

Antarctic Tourism Observed

During two cruises to the Antarctic Peninsula region, the author observed tourism activities on a day to day basis. Usually two to three Zodiac landings per day were carried out and 18 different sites were visited in the process. Passengers spent between 2–3 hours ashore at each landing site. After landing passengers were advised of 'No-Go Zones' such as the Site of Special Scientific Interest (SSI) near the Polish Arctowski Station and were given another reminder of the IAATO and ATCP guidelines for tourist behavior in Antarctica. This author did not observe any willful damage to the Antarctic environment. Most of the tourists stayed relatively close to the landing site where they were more or less in view of a lecturer/guide or the expedition leader. These observations are in line with observations made by Stonehouse that 'passengers ashore are almost invariably well behaved and that he has yet to see one drop litter, knowingly trample vegetation or interfere seriously with wildlife' (1994:202).

Conclusions and Recommendations

In the opinion of this author, Antarctic tourism is at present the most well-managed tourism in the world but there is no room for complacency. Tourism operations could be further improved if a more co-operative and integrated approach to tourism management was taken. Better communication among Antarctic tour operators and among expedition leaders with regard to dates and times during which they plan to visit Antartic wildlife sites is needed. This co-ordination is, at present, very much ad-hoc. It is left to the individual expedition leader to approach his colleague from another ship while in port or via radio to discuss his plans for the next voyage. Expedition leaders are not bound by any fixed itinerary as all published itineraries clearly state that they are subject to change without notice. Thus, published itineraries can only be seen as an indication of where the cruise might go with the expedition leader being in full control of the final destination decision. With 14 ships operating in the Antarctic Peninsula region during 1995–96, and more ships expected during the next few seasons, a lack of co-ordination among expedition leaders with regard to their daily destinations can be expected. This can lead to 'traffic jams' with ships anchoring off a potential landing site and resulting in higher than necessary numbers of people visiting the same site within a short period of time. An improved co-ordination of itineraries would avoid over-visitiation of wildlife sites and thus, to a reduction in the potential for negative environmental impacts. It is interesting to note that an approval system for visiting scientific stations has existed for several years while no such system is in place for the, arguably, more sensitive wildlife sites. Because of the 'expedition' usage of Antarctic cruises which demands a certain element of calculated flexibility as well as the commercial interests of the various operators, this closer co-operation will not be easily achieved. It must however be accomplished in order to sustain the resource on which Antarctic tourism is based. A more comprehensive model for an integrated approach to the management of Antarctic tourism would involve not only operators and expedition leaders but all players including Antarctic Treaty Parties, Managers of National Antarctic Programs (COMNAP), IAATO operators, expedition leaders, lecturers, crew members of cruise vessels and tourists. The key to a successful integrated approach to the management of Antarctic tourism is the establishment of structured and continuous lines of communication between these players. Only if such a system is in place will Antarctic tourism be managed in a long term sustainable fashion.

In summary, ship-borne tourism to the Antarctic Peninsula has to-date been an example of how tourism and nature can co-exist without unacceptable detrimental effects. As the number of Antarctic cruise passengers increases (some estimates are as high as 20,000 by the year 2000), the more
co-ordinated approach to the management of Antarctic tourism suggested above must be implemented.

References


THE IMPORTANT PLACE OF MARINAS IN NAUTICAL TOURISM AND THE CHALLENGES TO FINDING PLACES FOR THEM

Ron Stone  
National Marine Manufacturers Association (United States)

Abstract: This paper gives an overview of marinas in the United States—their existing numbers, size, location, and economic significance; the necessary role of government in recreational boating facilities development; the marine manufacturing and tourist industries’ vested interests in boat access to recreational waters; and regulatory and multiple waterway use conflict problems surrounding boating facilities development. Because of the CMT 1996 locust, the focus is on marinas in the Pacific States.

Recreational boating facilities developers today are embattled by environmental issues, scarcity of desirable waterfront property, and spiritual, oftentimes aerosomatic competition by other water users. The paper weighs the importance of marinas to national, state and local economies and the future of the boating industry and nautical tourism against considerations of environmental impact and safety. Long-term policy recommendations are made for meeting the challenges to recreational boating facilities development.

Special attention is given to increasing government recognition that marinas are an asset to their community, and the various ways governments have found to nurture, protect, and even partner in boating facilities development.

The author bases his observations on a life-long career in the recreational boating industry and the several hats he wears as the director of the boating facilities department of the national trade association for the recreational marine manufacturing industry, the secretariat to a state government’s organization for boating access, and the secretary to the boating facilities committee of an international council of marine industry associations.

Keywords: marinas, Pacific States, recreational boating

Recreational boating is big business in the United States. The manufacturing of boats and associated equipment is a $17.2 billion a year industry employing half a million full and part-time persons.¹

The large and diversified American boating industry comes from the vast size and diversity of the nation’s boatable water. The United States boats 85,000 miles of coastal shoreline and more than 88 million acres of inland lakes and rivers. The great majority of these surface waters are in the public domain and are by right accessible to the public for all manner of water based recreation. More than half the nation’s population lives within 50 miles of navigable waters. That close proximity is a large factor in the popularity of the ownership and use of boats for family-oriented recreation.

In 1995, recreational boat ownership in the United States was estimated to be 16,724,000 craft of all types. This estimate is based on records of manufacturers’ annual unit sales of boats,¹ backed up by government boat registration figures.² Two-thirds of the recreational fleet, or more than 11 million boats, are registered by law with state and territorial governments. In addition, there are more than half a million larger, ocean-going pleasure yachts which are documented by the U.S. Coast Guard. In recent years, boat registrations have grown steadily at a rate of two to three percent per year nationally. The Pacific Coast States of California, Oregon, Washington, Alaska and Hawaii alone account for 11.38% of the total number of boats nationwide.³ The national per capita average ownership of recreational boats is about one for every 22 to 23 persons. These figures represent boat ownership, not the number of people who actually participate in boating.

In 1995, an estimated 76,828,000 Americans participated in recreational boating one or more times during the year. This takes into account passengers or guests aboard a boat in addition to the owner/operator as well as renters of live aboard charter boats. In other words, last year about one out of every four Americans went boating at some time.

With more than 76 million Americans making use of more than 16 million boats on our nation’s waterways, and with excellent prospects that more people will be attracted to boat-based recreation as the economy improves, medical science increases average life spans, and there is more time and money for leisure time activity, the United States is faced with a growing supply and demand problem with boating facilities. This is of great concern to the marine manufacturing and tourism industries. The lack of convenient parking space for bigger boats that depend on marinas and the scarcity of convenient access to water for smaller trailerable boats that depend on launching ramps
can make a big difference in the perception of boating as a quality recreation experience. That perception of how convenient and safe it is to get out on the water can be decisive in whether one chooses to buy a boat and associated equipment. It can be critical to the tourism industry in terms of where one chooses to enjoy boat-based forms of recreation.

The marine manufacturing industry keeps close count of the number and location of wet slips, dryland storage space for boats, and small boat launching lanes throughout the nation.

Currently, NMMA is able to verify 7,900 marinas nationwide. The NMMA Marina Inventory provides the name, address and telephone number of every marina listed and the body of water on which it is located. Also, it shows how many berths there are for boats from one marina to another, or totally from state to state, region to region, and nationwide. This data is widely consulted by marine manufacturers, marina consultants, government recreation planning agencies, tourist bureaus and others who are interested in market size and location. It is extremely valuable information, very likely the most comprehensive of its kind. It makes the case that many locations do not have nearly enough parking space for resident and transient boats.

In all marinas known to us at this time, there are only 711,900 wet slips. Of these, nearly 23% are on the Pacific Coast; another nearly 60% are located on other coastal waters of the United States and the Great Lakes. The smallest percentage is scattered around the relatively smaller inland lakes and rivers.

Compounding the widespread shortage, there have been serious challenges to recreational boating facilities development in recent years by costly environmental restrictions, competition for rapidly diminishing desirable waterfront property, and resistance from waterfront private residential property owners who do not want to share what they view as their water alone with outsiders. The boating industry is striving to meet these challenges by publishing the demonstrable beneficial economic benefits of a boating facility to a community, by proving that marinas are environmentally sensitive and responsible, and by rationally taking the position that boat traffic problems can be handled by zoning the use of the water by area or time of day for different activities or by more effective enforcement of existing boating safety laws, but never by limiting boat access to public water.

There is a great deal to be said in favor of marinas as a magnet for economic development and the promotion of nautical tourism. A marina provides jobs starting with the on-site labor needed to build the facility. The economic benefits continue in the ripple effect a marina has on the surrounding community through boaters’ demand for goods and services such as restaurants, sporting good stores, boutiques, gasoline stations and hotels. It is good for tourism. In fact, increasingly marinas are being touted as destination point resorts for cruising yachtsmen. Further, marinas are a boon to the community by contributing to local taxes for the support of community services. Marinas beautify the neighborhood and enhance property values in a community where they are often built on the site of an abandoned factory or derelict wharf or pier.

Many cases can be cited where recreational boating facilities development has opened the door to the revival of decayed urban waterfronts. The City of Baltimore, Maryland’s Inner Harbor Development Project is a perfect example. Where once there were unsightly slums and abandoned factories and warehouses bordering the Patapsco River, today there is a dynamic complex of aesthetically pleasing and economically successful marinas, restaurants, retail stores, hotels and museums that have made Baltimore a center of nautical tourism. The benefits are not limited to boaters. Inner Harbor draws millions of non-boaters every year for the enjoyment of its public promenades, affordable shopping and dining, harbor cruises, a highly regarded waterfront aquarium, and an array of permanently docked historical ships that are open to the public. People like to come down to the waterfront just to look at all the pretty boats. Marina development has proved to be the start of waterfront revitalization in other cities from coast to coast—Boston, Toledo, Cleveland, Racine, Wisconsin, San Francisco and Seattle.

There is increasing evidence that governments recognizes the value of marinas in how far they are willing to go to financially assist in marina development and preservation.

Throughout the United States, there are examples of state and local governments that have created tax incremental financing districts. In these districts, all of the real estate and sales taxes paid by the marina are ploughed back into utilities or other community services benefiting the marina instead of being absorbed into general revenues.

More than two-thirds of the states as well as the federal government dedicate taxes collected on gasoline purchased to propel motor powered boats to special funds to enhance boating safety and facilities and services. Under 1992 Federal Clean Vessel Act Amendments, Congress set aside $40 million from gas tax collections in competitive grants to states over a five-year period to install boat sewage
pumpout stations at marinas. Private marinas may participate in this grants program through their designated state agency, typically as much as $15,000 per facility. For a time, the State of California used state marine fuel taxes credited to a Harbors Revolving Fund as the basis for loans to private as well as public marinas for development and expansion.

Governments also have been known to provide assistance to preserve the use of waterways for recreational boating facilities. This is called "blue belting."

The idea is to provide sufficient financial incentives to marina owners to keep property in use for boating that they might otherwise be tempted to sell out for a greater return to non-boating, non-water dependent users. Blue belting takes many different approaches, including:

1. Preferential property tax—the marina is taxed according to its income earning potential as a recreational boating facility rather than according to its actual market value.
2. Deferred tax—taxes are deferred, but repayment with interest is required in the event the marina is converted to a non-boating, non-water dependent use.
3. Purchase of development rights—government pays the marina owner the difference between the fair market value of the land and the value of the property as a recreational boating facility; the marina owner retains ownership and operation of the facility and the government ensures that the property will be developed for no purpose other than boating.

Instances of governments getting directly involved in marina development and ownership have increased significantly in recent years. This is largely a result of public pressure to build more recreational boating facilities, plus recognition that marinas can be a lightening rod for economic development and the revitalization of decayed waterfront property. To their great satisfaction, governments have discovered that the income from slip rentals and taxes from businesses that have grown up around the marina go a long way toward retiring revenue bonds or other means used to finance the marina construction.

More and more, one hears about governments going into partnership with private developers on marina projects. Government builds the facility, then leases it to an accredited developer with a knowledge of the boating business and a knack for making a profit. Customarily under these lease agreements the developer is totally responsible for staffing, promotion, slip rentals, and all other things that go into the operation of a marina. Government has the best of both possible worlds. It is relieved of the responsibility of performance in the operation and maintenance of the marina. The burden of making a profit is on the private lessee, and government gets to collect the taxes.

To recapitulate, there are several major challenges facing marina development today: (1) greatly limited space for development; (2) multiple use conflicts on increasingly crowded bodies of water; (3) environmental restrictions; (4) length of time it takes to get a project through the permitting process; and (5) the need for venture capital in both the public and private sectors.

Some long-term policy recommendations for meeting these challenges:

- A National Boat Access Needs Assessment is needed to document the case that there are not enough facilities to accommodate existing and projected demands. Boating interests are well advised to develop and periodically update a comprehensive facilities development and expansion plan.
- The tourist industry is an important stakeholder in the future of boating, and should take a greater interest.
- Develop a comprehensive, computerized boating facilities information network with GIS/GPS mapping capability to help boaters to locate desired facilities and services.
- Where commercial marinas are not viable, there definitely is a place for government-owned facilities.
- There needs to be clear-cut government policy for protecting adequate public access to boatable waters, reconciling the public's right to use of public waters for recreation with sustainable development and the ability of different water bodies as natural resources to accommodate multiple water uses.

Discussions at earlier international conferences on coastal and marine tourism have brought out that the recreational boating facilities shortage is a universal problem. This paper has endeavored to give you only the American perspective, but it is meant to suggest some universally applicable strategies for dealing with the problem.

ENDNOTES

1 A marina is defined as a facility located on the water that provides parking space for recreational watercraft at docks, moorings or on dry land. It is distinguished from a boatyard which is mainly a recreational or commercial boat repair facility.

2 Ron Stone is director of the Boating Facilities Development Department of the National Marine Manufacturers Association (NMMA), a national trade
association in the United States representing more than 1,700 recreational boat, marine engine and associated equipment manufactures. He is also secretary to the Boating Facilities Committee of the International Council of Marine Industry Associations (ICOMIA), and the States Organization for Boating Access (SOBA).

"Boating 1995"—the latest annual statistical report by NMMA on the size of the recreational boating market, providing state by state breakdowns of unit sales of boats and associated equipment.


"Boating Statistics 1995" (June 1996)—U.S. Coast Guard annual statistical report on the number of registered boats, state by state.


Remarks by Ron Stone to the Workshop on Safe Boat Carrying Capacity, Michigan State University, August 17, 1995.

THOSE IGNORING THE RUDDER SHALL ANSWER TO THE ROCKS: A CASE STUDY OF COLUMBIA RIVER BOATING ACCESS

Bruce DeYoung
Oregon State University (United States)

Patrick Corcoran
Oregon State University (United States)

Abstract: Purchasers of the smallest pleasure craft to grandest vessels propelled the U.S. boating business to $17.2 billion in 1995 overall sales. This is a 22% sales increase over the prior year and the third consecutive year of recreational boating retail sales growth.

This retail sales explosion of recreational vessels is mirrored by increased boating activity in waterways around the country. For instance between 1982 and 1992, the total number of boat use in Oregon increased by 67%. Hence planning for appropriate recreational boating access is needed to ease overcrowded moorage sites and enhance waterway safety, while avoiding the degradation of sensitive aquatic habitat.

To address these challenges along the Oregon’s portion of the Columbia River, a jointly sponsored university and agency study was conducted to assess recreational boating needs and appropriate access sites. This led to the State of Washington sponsoring public boating access studies along their portion of the Columbia River. These studies formed the basis of a bi-state workshop of key stakeholders which identified public boating access priorities for the waterway as an integrated system.

Since recreational boating activity is expanding in many parts of the world, the lessons of this bi-state experience will be valuable to those seeking to balance recreation based economic development with coastal resources protection across jurisdictions.

Introduction

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Since recreational boating activity is expanding in many parts of the world, the lessons of this bi-state experience will be valuable to those seeking to balance recreation based economic development with coastal resources protection across jurisdictions.

Background and Problem Description

The Pacific Northwest has long been a destination for those seeking a better life. However, not since the celebrated immigration period of the Oregon Trail has the rate of population growth been faster than today. Between the five short years of 1985 to 1990, more than 400,000 new immigrants arrived in Oregon—about 220 new people a day (Frohnmayr, 1993).

This in-migration is having significant consequences on the region’s outdoor recreation participation rates and natural resource base. During 1982-1990, the total number of days of recreational boat use in Oregon increased over 58% (Oberm et al., 1993). The Columbia River and Willamette River systems accounted for over one-half of all boating by Oregon registered boats in 1990.

A surge in recreational boating on the Columbia River is most pronounced adjacent to metropolitan areas. There, residents with higher than average incomes are purchasing and using boats on the River. This is leading to crowded facilities and dangerous numbers of boaters congregated in
a small area. For this reason, additional public boating access is required to meet the needs of recreational boaters.

Description of Boating Studies

To address this challenge, the Oregon Sea Grant College program initiated a comprehensive boating study with the state’s marine recreational safety agency, the Oregon State Marine Board (OSMB), Washington Sea Grant and the Washington Intergency Committee on Outdoor Recreation (IAC). Sea Grant is a national university program concerned with conducting research and education for the wise conservation and use of coastal resources. As such, it serves as a bridge between university resources and real world issues.

Over the course of five years, Sea Grant faculty employed four university graduate students to identify the access needs of recreational boaters along various sections of the Columbia River. Research methods used in these studies included: 1) written surveys of a broad cross section of the recreational boating public, 2) on-site intercept surveys of Columbia River recreational boaters, 3) a physical appraisal of the river and land adjacent to prospective sites, and 4) interviews of key regulatory agency personnel and access facility providers.

This collaboration allowed graduate student researchers to engage in practical fieldwork, produce valuable public planning documents and multiplied the energy and resources of co-sponsors for public benefit. These comprehensive planning studies evaluated facility siting options based on natural resources, recreational boater needs and cultural resources at each site. This effort sought to promote a systems approach to planning for recreational boating access among the various partners.

During 1991-1996, the Columbia River was studied and planning documents completed from Astoria, Oregon to the Tri-Cities in Washington. This included over 465 river miles Columbia River riparian areas. More than 93 potential public boating access sites were identified by boaters. Of sites studied, 58% are considered to be promising, while the balance are considered undevelopable according to established criteria (Cassell, 1991; Burt, 1993; Cerveny, 1995).

Several criteria were considered in the process of identifying promising sites for transient moorages (See Appendix). Generally, sites need to have certain physical attributes for development and safety, be appropriately spaced for optimum use and connectivity, be attractive and near wildlife or cultural sites without harming them. Water quality is a significant factor in that sanitation was one of the most visible difficulties noted during on-site surveys. Ownership of property is not a significant factor in determining site priorities. If a site is highly desirable and in the public interest there are methods available to purchase them.

Description of Stakeholder Priority Setting

A key systems management question for the future of Columbia River recreational boating is how multiple states and jurisdictions can provide for additional recreational launch ramps and moorage facilities without significantly degrading natural and cultural resources. The decision making process by which stakeholders plan for future boating access is as critical to the long term sustainability of Columbia River boating as the recreational facilities themselves. An effective process sets the tone for future working relationships among key stakeholders and reduces the chances of unnecessary duplication of facilities.

A bi-state workshop was held to involve key stakeholders in a process to prioritize existing and potential sites and facilities for expanded boater access. The study area was the Columbia River from Astoria, Oregon to the Tri-Cities, Washington. The participants were public boating facility managers, members of boating organizations, university extension faculty, outdoor recreation planners, and port managers, and waterway association members. The interests of a wide range of recreational boaters were also represented through the results of the university surveys.

Designing workshops for such a complex set of public issues and partners is challenging. There is considerable research on effective processes in the fields of interpersonal relationships and conflict (Hocker and Wilmot, 1991), and in the corporate world (Settje, 1990). There is also emerging work within public organizations (Bryson, 1990). However, there is very little published on how to design effective processes where the nature of the problem brings together such a mixed group of participants who need to come to consensus on difficult issues—and who are responsible to the public for the outcome. The recent work of Bergstrom et al. (1995) and Allen (1990) provide some helpful guidelines for collaborative problem solving in the public sector.

A key understanding in this effort is that an effective process may not be efficient in terms of time. There is an important distinction emerging between traditional forms of public “input” to a primarily internal decision making process, and more effective forms of true public “involvement” in the decision making process.

In traditional decision making deficiencies are identified by staff, options to the deficiency are internally examined, proposals are submitted to address the internally defined problem and are evaluated internally, plans are formulated, public hearings are announced and conducted, plans are
sold, objections are overcome, appeals are dealt with. This approach worked pretty well when the problems were isolated and staff had the expertise to solve the problem. Today, most of our most pressing public issues are highly interconnected with responsibility spread among a variety of entities. Topical expertise often has less to do with solving these problems than does effectively managing diverse, strongly held views.

A more effective form of decision making in this context incorporates the affected parties early and throughout the process. In this approach the perceived deficiency is originally identified internally but selected members of the public (a task force) are invited to determine whether there really is a problem and whether any action is needed. Next, the nature of the decision is jointly defined (are we addressing symptoms or root causes?), and criteria are established for making that particular decision. At this point a variety of options are developed, and then examined using the criteria as a screen.

Thereafter an open public meeting is scheduled to describe the process used to date and introduce the task force members. All of the options are presented along with the decision criteria and reasons are explained for rankings. The task force recommendation is offered. If there is more than one, the strengths and weaknesses are considered for each. A decision based on this information is implemented. Any appeals can be addressed with a clear public record of the process. The philosophy and elements of this approach was used to design the bi-state boater access workshop.

The Problem and the Process

The problem addressed by this workshop was a perceived lack of adequate facilities for recreational boaters along the Columbia River. This perceived problem was confirmed through the university studies of boater needs and through discussions with related individuals and organizations. The type of action needed was a prioritization of facility expansion and development option. Stakeholders were identified to provide advice to the organizations responsible for facility development. This was not a decision making group, but an advisory group.

The purpose of the group work was, therefore, to review and discuss the potential sites for expanded recreational motorboat access and transient moorages in the study area, and make recommendations for facility development over the next five years. The further challenge was to design a process where people familiar with the topic could explore reasonable alternatives for development and offer recommendations—in only a few hours time. The process of prioritizing sites was an afternoon “work activity” within a full-day workshop.

Before breaking for lunch, a facilitator outlined the afternoon agenda and proposed several criteria for prioritizing sites. The criteria for prioritizing sites were developed by the planning team and proposed to the group for validation. They were based on the criteria used in the studies outlined above and are presented in Appendix. Since establishing hard criteria effectively “frame” the discussion and prioritization process (which is important for gaining useful information), it is important for the participants to agree upon the criteria. After discussion and clarification, the criteria were agreed to by the participants.

Large computer-generated color maps of four sections of the Columbia River created and provided to breakout groups showing them the location of existing facilities. Facilitators helped each of these groups to come to agreement on where improved or transient moorages and boat ramps were most needed. Facility siting recommendations were determined based on their congruence with the decision criteria presented earlier. Through a balloting process, each team identified five priority sites from among thirty to forty promising sites identified in university studies. The breakout groups then reconvened and reported the prioritized sites for their section of the Columbia River. The large group then discussed the prioritized sites from a “whole-river system” perspective. That is, evaluating the choices from each section to see if they led to an integrated plan for development.

The final product of the group work was a large map of the study site with the prioritized transient moorage and ramp sites indicated by colored flags, flip charts documenting all sites discussed in small groups (including those that were not top priorities), and the criteria used to establish priorities.

Results and Conclusions

Priorities for recreational boating facilities for the next five years were identified through a major workshop of key stakeholders from the states of Oregon and Washington. Results of this project will be used by state, county, and city agencies to develop new transient boater mooring facilities in appropriate sites. To date, the Oregon State Marine Board has invested over $800,000 for the development of several recommended sites along Oregon's portion of the Columbia River.

Related enterprises such as boat yards, bait shops, marina operators, etc., are also using this applied research information. For instance, university studies documented that many boaters avoided dams rather than locking through because there was no safe tie-up while waiting one's turn for passage (Burr, 1993). As a result, the new Bonneville Dam locks are being designed to include safe
moorage with simple instructions on how to lock through and communicate with the lockmaster.

The increase in recreational boaters in Oregon, concurrent with a significant increase in population statewide, will lead to higher usage of the Columbia River by both recreational and commercial vessels. The orderly development of a network of transient moorage facilities and boat launch ramps along the river will:
1. assist in reducing boater conflicts,
2. provide a safe, pleasant experience for recreational boaters,
3. minimize adverse impact on the environment, particularly riparian habitat and water quality, and
4. coordinate access facility decisions being made by numerous jurisdictions and agencies along the Columbia River.

Through longer-term planning processes we hope to provide a means for protecting the boater, the environment and quality of life valued by so many. As growth and diversification takes place, a fundamental challenge will be to retain natural resource amenities and be responsive in providing appropriate boating access infrastructure. Toward this end, the following recommendations are offered for others planning the expansion of recreation boating access:
1. Use a systems approach—avoid a short termed, single site orientation when considering future boating access.
2. Work closely with stakeholders—survey and engage those who will be using future access sites to learn their interests and recommendations;
3. Develop management criteria—develop a list of criteria which serve as a tool to identify the most appropriate sites (see Appendix).
4. Foster public involvement—create opportunities to involve users to determine critical problems, help set priorities for future development, and build political support for the projects.

References


Oregon Extension Sea Grant Program and Oregon State Marine Board.


Appendix

The criteria used in the boating studies and workshop are listed below.

Generally:
- Don’t worry about achieving parity in the number of sites between the Oregon and Washington sides of the river, or among the upper or lower reaches of the study site. Think primarily about the needs of recreational boaters.
- Boat hoists and combinations (ramps and moorages, hoists and moorages, etc.) can also be proposed.
- Consider the sites in terms of appropriate physical setting and design standards.
- Consider the cultural and community impacts (both positive and negative).
- Consider the environmental impacts.
- Consider the political realities of developing the site.
- There are existing or emerging “great opportunities.”

Transient moorages:
- Sites need to be reasonably close (less than 10-15 miles apart).
- Sites need to be in areas of low wind and wave.
- Sites need to be at least six feet deep.
- Sites need to be adjacent to significant amenities or other attractions.
Boat ramps:

- Improvements to existing ramps should be prioritized over new ones.
- Sites need to be near to populated areas (boaters).
- Ramps must meet the needs of recreational boaters.
- Sites will be preferred that are adjacent to publicly owned land for access.
SHORE BASED RECREATIONAL LIVERY (RENTAL) BUSINESS DEVELOPMENT; BUSINESS, SAFETY AND REGULATORY COMPONENTS

John Donaldson
Yamaha Motor Corp. (United States)

Abstract: The shore based recreational rental business has been undergoing a major evolution over the past decade. The advent of relatively inexpensive personal watercraft, with their broad appeal to casual boating experiences, has increased the level and scope of rental companies at beachfront locations throughout the world. This in turn can lead to increasing concerns on the part of public safety officials and those responsible for tourism policy.

Elements of the livery operation including marketing, safety and policy management can be identified as important to development of policy consistent with the tourism and other economic tenets of a community. The experiences of hundreds of communities that routinely deal with livers throughout the United States serve as examples of both the benefits and the challenges of this non-consumptive recreational attraction. A review of how these communities have adapted to the changes will help illustrate what opportunities and pitfalls exist.

The individual livery operation itself is a model of entrepreneurial opportunity. It is a form of business that allows an individual of modest means to enter a service related business, while at the same time providing tourists with a quality experience that showcases the uniqueness of the local marine environment. The market access needed to stimulate formation of this type of business is consistent with many other aspects of waterside and marine tourism of both the consumptive and non consumptive nature.

Keywords: personal watercraft, marketing, economic impact

Introduction

The concept of a sustainable coastal marine tourism activity as I view it would include the premise that at the end of any given day, when business for the day was complete, there would be no noticeable change to the waterside environment from any previous day. The local marine tourism activity environment would require no displacement of existing resources or changes to the environment for that activity to function normally. It is my position that a marine livery (rental) operation that includes personal watercraft (PWC) would fulfill such criteria. The specifics of such a livery operation are, as demonstrated by actual practice at hundreds if not thousands, of locations around the United States and elsewhere, uncomplicated in nature. However, in many areas, the public policy issues and recreation management issues involved are quite the opposite.

Before I discuss the policy and regulatory issues such a livery could involve, I would like to give an overview of the economic factors. Without an economic benefit, the development of any commercial operation is unlikely and, if initiated, is usually doomed to failure. With waterfront liversies, as amply demonstrated by the hundreds of such business all across the U.S., there can be a significant economic benefit to the operator directly and indirectly to the local community.

PWC Liversies and Economic Impact

Such liversies have existed in many forms for years and would generally include rentals of shoreside recreational items including canoes, air mattresses, snorkeling gear, outboard engine powered fishing boats, row boats, beach chairs and mats and even small sail craft. However, increasingly now days one finds a substantial element of the financial benefit to the livery operator results from the inclusion of PWC in the mix of equipment available for rent at the livery location.

Interviews with various livery operators indicates that where the location is particularly well suited for PWC operation, PWC rentals creates the majority of the cash flow and the majority of the transactions at the site. In fact at a substantial number of the sites, the PWC may be the only piece of equipment available for rental. The location may have other marine related activities such as a fuel dock or marina, which would have been the initial reason for location at the water’s edge, and the addition of a PWC livery required no additional capital improvements. One element of business operation that will be discussed later is the responsibility of the site operator for the safe and responsible use of the rental equipment. The point of dwelling on this PWC domination of many waterside liversies is to highlight that such a business venture is not only viable, but from the business perspective, may be less risky in terms of return on investment. This return on investment is in comparison to almost any other type of waterfront livery activity, livery or otherwise. Also the various interviews conducted for this paper indicated that the marginal return on investment, i.e., the increase in business revenues from PWC liversies may be the highest of any type of investment in livery related products a waterfront rental can make.

The empirical evidence suggested by the dominance of PWC-only activities at many locations is that facilities and shoreside conditions are a major factor in the “product” that a livery may be able to develop for consumer consumption. For example there may be limitations based on depth of water, the ability to expand or even install docks, a number of already existing structures, biological
environmental constraints, or any of a number of conditions that would preclude other types of waterfront construction or development. A further point of consideration is that the PWC livery is possibly the least sensitive to an ideal waterside "retail" environment relative to potential commercial success. By this I mean that it is very likely that modification or additional construction or development on the waterfront may not be necessary. Factors of zoning and waterway regulation are also involved in siting of livery locations, but the two dominant factors for most operators is water access for the equipment and access to a stream of potential consumers.

The idea of an optimum waterside environment is what one expects to find in tourism brochures and pamphlets, i.e., wide sandy beaches with tranquil waters, tree lined, and sunny. In this sort of environment, tourism can support multiple activities at a livery as suggested earlier. However, many coastal areas either lack such an idealized waterfront or have other impediments such as rough seas, rock strewn bottoms, less temperate water or lack of access, generally because of private property ownership of the beachfront. In such a situation where the waters may not generally be suitable for the most casual of water recreation such as swimming, snorkeling, etc., there is still the opportunity for a livery involving a PWC while maintaining the aforementioned negligible impact on the surrounding environment.

A typical example of such a range of development can be found along the Dade County, Florida (Miami area) coast and inter-coastal waterways. Beach front on the Atlantic one finds a mix of high-use developments, divided between condominiums, resident hotels, timeshares and normal hotels. On the intercoastal side of the barrier islands one also finds hotels, and condos, as well as marinas, boatyards and the occasional park. The significant difference is the Atlantic side has the wide, sandy beaches with usually tranquil currents and generally modest wind chop type waves. The intercoastal waterfront generally features no beach, has frequent bulkheads or other types of traditional boat docks and is not characteristically, water contact sport oriented (i.e., swimming, snorkeling, diving, water-skiing, etc.).

In both instances however, where permitted by other constraints such as speed or ownership restrictions, PWC liversies flourish. One particular stretch of the intercoastal waterway in Hollywood, Florida, supports six PWC liversies and finds ample tourist support because of the proximity of a state highway and numerous hotels. At the same time, the extent of facilities improvements needed for these operations include installation of lockable storage facilities on previously existing docks and in one instance a davit mounted on the bulk-head of an existing motel.

The idea of entrepreneurial access to an opportunity like a PWC livery is in fact bolstered by the low business risk compared to return on investment mentioned above, the low (relatively) initial investment, the absence of a requirement for sophisticated business controls or training, and the low level of investment outside the rental equipment (for capital improvements such as facility development or improvement). This latter point could be compared to marina development, for example, where not only are modifications to the waterside environment needed but there are inevitable changes to the submerged land under marina docks and around piling. Such marine development related environmental changes could certainly be mitigated by careful site work and design, and use of the significant advances in recent years on more environmentally sensitive marina building practices. The fact remains that the investment costs for marina development and for most other capital projects on the shore are far, far beyond the means and vision most individuals who might otherwise have the entrepreneurial drive to start a tourism related business.

Up to this point I have uses primarily hypothetical concepts to suggest the value to the community of PWC oriented liversies. There are data available that provides a concrete sample of the potential economic benefits of PWC liversies. In a report prepared for the Personal Watercraft Industry Association in May of 1996, Thomas J. Murray and Dr. Richard J. McHugh did an analysis of the "Economic Activity Associated with Personal Watercraft use in Monroe County, Florida." They used both interviews with PWC livery operators and other sources including Monroe County specific U.S. Government surveys to reach their findings.

Mr. Murray and Dr. McHugh identified three sources of economic impact: direct market impact from sales of goods and services to the public, 'indirect economic activity' generated by the support services required for direct market sales (including for example payments of rent, fuel purchases, marina business costs for the PWC business, etc.) and finally the impact of expanded employment and cash flow in the wider community, referred to as 'induced' economic impact. More detailed discussion of the economic modeling was beyond the scope of the "Economic Analysis..." report but can be found in IMPLAN, a model developed by the U.S. Forestry Service for use in calculating the full economic impact of any local economic activity.

From the "Economic Analysis..." work it was determined that there were between 45 and 55 PWC rental operations in Monroe County at the time of the NOAA study and that these liversies had between two and seven PWC available for rent. The general rental was to one or two persons with each number being evenly reported. The average rental charge was $40.00 per half hour, and while other packages
of rental use are typically available at higher fees, levels of participation could not be readily estimated. The number of livery PWC available for use during the NOAA survey was estimated by Murray to be approximately 250 PWC\(^1\) and this data was collaboratively by independent sources in Monroe County.\(^4\)

Quoting from “Economic Analysis...”:

The number of revenue trips per year equaled from 42,013 to 63,019 for the two months based upon the NOAA tourist survey information on ‘PWC rental participants’ and information regarding PWC rentals from local rental businesses. The range of estimates is based upon the assumption that not all the rental trips (‘participants’) are with one rider. The single rider assumption may somewhat overstate the riders based upon industry information. Furthermore, the consideration of an average number of riders of 1.5 will further balance against any upward bias in use of the July-August sample for annual estimations. The average revenue per rental trip is assumed to be $40.00 and the July-August, 1995 period is assumed to be normal for PWC rentals in the Keys (Monroe County). Given these ranges then the gross revenues for PWC rental in 1995 are estimated to have ranged from $10,083,040 to $15,124,560.

The gross revenue numbers do not include the second and third levels of economic impact discussed earlier. To get the full measure of these factors, the IMPLAN model estimates an expenditure multiplier for this mix of spending in Monroe County to be 2:21\(^5\). The direct impact of $10.1–15.1 million thus translates into total impact of $22.3–33.4 million, or an average estimate of $27.8 million. When combined with the further calculation that each PWC generates approximately $40–$60 thousand gross revenue for the owner based on the 250 units in use number, one sees the potential economic engine the PWC livery can be, both for the community and for the individual operator.

To reiterate the earlier point regarding the economic impact of PWC oriented liveries versus the capital investment in infrastructure to support the activities, Murray and McHugh found\(^6\):

In an area like the Keys, location and water access are clearly a limiting factor for watercraft rentals. Three primary locations can be characterized:

1. Rental operations located at existing marinas and resorts;
2. Rental operations located on relatively unimproved waterfront; and
3. Rental operations located on trailers and floats.

These specific description of rental sites are consistent with the vast majority of locations throughout the rest of the U.S. and are a strong indicator that a requirement for development or disturbance of the waterfront environment is generally not a factor in the operation of a PWC oriented livery.

Once the economic value and impact of PWC are understood, it would be logical to look at the other impacts of PWC liveries, those issues that are regulatory and policy in nature.

**PWC Liveries and Public Policy and Regulation**

Over the past five years no single subject has had more discussion or more focus in the realm of recreational boating policy than the regulation of personal watercraft. This discussion and focus extends from workshops in National Association of Boating Law Administrators annual conferences, to the sub committee within the U.S. Coast Guard organized Boating Safety Advisory Council, to task forces at the state level in several states. Further, occasionally legislative and regulatory approaches are challenged in court by the Personal Watercraft Industry Association (PWIA) when in the PWIA’s opinion, the specific approach is unduly arbitrary and egregious. The obvious implication of this volume of public discussion and focus is that the recreational waterway managers in many locations have issues related to the use of PWC that defy a simple or pat solution. In many instances, PWC liveries are a factor in this public policy debate and may frequently be portrayed as one of the root causes of controversy in a particular community.

**Background**

The personal watercraft industry is the relative newcomer to the world of recreational boating. The first mass production of PWC began in 1974 when Kawasaki introduced the first Jet Ski, the “stand up” style of craft. The industry sales growth began gathering momentum substantially in 1987 with the introduction of the “sit down” style of craft, and by 1995 PWC accounted for over 1/3 of all boats sold, numbering approximately 200,000 units retailed in the U.S. Extensive demographics that define the purchaser of PWC exists with the various manufacturers and with others, but the demographic data on renters has not been gathered. Also of note, while the U.S. market accounts for approximately 90% of total world sales, many of the issues debated in the U.S. are quite relevant elsewhere, and if fact are generating the same levels of interests in legislative or regulatory solutions to issues.
Issues

I have alluded to a number of issues associated with the private and rental use of PWC that usually are laid at the feet of recreational managers and policy makers to resolve. I have found that those who wish to consider restricting the recreational or rental use of PWC are usually without much factual information on the construction of the craft, the performance characteristics of the craft, the demographics of the owners or a sense of context regarding the broad spectrum of boating safety issues. Nor for that matter do those who wish to limit or restrict the use of PWC have data on any types of environmental impacts such as noise, benthic disturbances, wake energy, etc. What usually provides the motivation for the calls to restrict PWC are what I refer to as “user conflicts,” or the feeling by one group of recreational waterway users that their particular use of the resource has precedence versus other uses. The classic example of this can be found once again in Monroe County, Florida—the Florida Keys. There was a recent fund raising event for a local charity, sponsored by a fishing guide organization, featuring $1-per-smash with a sledge hammer on a PWC. Similar conflicts exist between many other user groups and PWC, including many environmental groups.

The sources of the conflicts with PWC stem primarily from the operational characteristics of the PWC, most uniquely its ability to operate in shallow water, perhaps as shallow as 12 in. without damage to the craft. While all manufacturers warn against use in water depths of less than 2 ft., both to protect the equipment and the bottom, and to help prevent accidental groundings, users are frequently unfamiliar with the water depths and the craft do not provide feedback on depth. This shallow water capability results in operation of PWC in areas that have traditionally had little or no recreational power boat traffic, and have been regarded in many cases as isolated. When an outdoors person finds their heretofore isolated location now accessible and visited by any number of PWC, they can be resentful, defensive, and activated (activated to turn back the hands of time to when only they were visiting the particular site). In many cases such remote access would be achieved by a paddle boat, canoe or kayak, leading the so called float boaters to become one of the interest groups motivated to restrict PWC. The same scenario can be developed to understand why surfers, fishermen, or sailboaters are frequently involved in supporting their own purges at the expense of other users of the recreational waterways.

The second concern frequently raised by those seeking to regulate PWC use is the issue of safety, with the context being safety of all the recreational waterway users. Boating safety is a topic that in the U.S. enjoys an almost unbelievable amount of attention from public and private agencies. Briefly, the U.S. Coast Guard has overall authority for all marine safety including recreational boating. They use a number of mechanisms for effective application of this authority including delegation; such as transfer of funds and sponsorship of volunteer organizations to delegate the responsibility for recreational boating safety to state control as well as supporting the educational activities of the Coast Guard Auxiliary and the U.S. Power Squadron. The result of this multilayer approach to boating safety is that there are many, many professional safety and enforcement officials who spend the majority of their working life improving safe use of recreational boats.

It is against this backdrop of competing interests for use of the recreational waterways and concerns about safety that the use of PWC must be measured from the perspective of policy and regulation. Further within this context, the how and what to regulate in the case of PWC liversies becomes a subset that regulators and policy makers could clearly approach with a separate perspective. While being influenced by the perceptive and attitudes of the larger, private ownership aspects of PWC use, PWC liversies account for less than 2% of the annual sales of the industry and less than 1% of the estimated PWC actively registered nationwide. In fact, at Yamaha Motor Co. U.S.A. applications for public safety use of PWC such as marine police, rescue squads, or lifeguards runs approximately twice the annual rate of rental craft sales. The conclusion I would suggest is that while reasonable and clear regulation of PWC-oriented liversies is a valuable and appropriate aspect of tourism management, such regulation does not need to be burdensome or overly restrictive of the access to the tourism market.

Regulatory Suggestions

The primary purpose of regulation of a livery should be for the protection of the center of the vessel and the protection of any other users of the waterway where the livery is located. Without question, success of a tourism industry is predicated on the quality of experience that the tourist has from the time he departs his home until he returns home. And this experience of course is enhanced by his ability to share with his "friends back home" the sense of relaxation and rejuvenation his trip provided him. The visitor should not only have an expectation that his choice of tourism activities are safe for him, but that they also do not create any burden on the local ecosystem or local community.

The manufacturers of all PWC have comprehensive warning and caution information on warning labels on their craft as well as repetition of this information in the owners manuals supplied with the craft. Reproducing that information in this paper would not serve to guide policy makers but it is recommended that a review of the manufacturer safety information can help with development of a foundation for livery policy.
• Clearly an important factor, if not the most important factor is the minimum age of the operator. All manufacturers recommend a minimum age of 16 and some states in the U.S. have adopted a minimum age for rental of 18 years old.

• Wearing of a life jacket at all time of operation by the vessel operator and any passengers is a key safety step. In the U.S., recreational vessels are required to CARRY life jackets for every person on the craft but some states have legislation that mandates the wearing of life jackets by all PWC operators and passengers.

• PWC should never be operated at night. At present, no manufacturer supplies PWC with lights nor makes any provision for installation of lights.

• In Monroe County (the Florida Keys), the National Oceanic and Atmospheric Administration (NOAA) has proposed that livers have a defined use area marked by buoys and that the entire use area be visible from the livery base location.

• NOAA also has proposed that all livers have a “chase boat” and operator ready at all times to monitor activity and to be able to respond to renters who either stray from the rental location or experience other needs for assistance.

• Livers could be required to have evidence of liability insurance to provide an additional measure of protection for tourists who might suffer an injury during operation of the craft as well as protect the local community from financial risk.

• Livers could be required to offer a video tape orientation to renters to insure a consistent and complete orientation to the PWC prior to rental. All manufacturers offer a safe and responsible use video tape at no charge to each purchaser of a PWC. In addition, the Personal Watercraft Industry Association has a video on rental safety available at no charge.7

• Livers should be required to have a business license issued by the local jurisdiction as a means of documenting ownership as well as assisting waterfront managers with tracking waterfront activity.

These are examples of the types of elements that local communities may wish to consider when they consider PWC livers. These conditions for business control are not meant to be all inclusive but more to be examples of the types of reasonable and definable requirements a livery can adopt without interfering with their ability to operate.

basic requirements, local entrepreneurs can readily form this type of business, make a good living, provide additional community employment, and financial stimulus in the community. This all can be accomplished with very minimal impact on the coastal zone environment. The scope of regulation and enforcement to oversee a safe and responsible establishment of a PWC based livery is minor in comparison to permitting and overseeing other types of business development in sensitive environmental areas. Resources are available to assist in the development of appropriate business and safety controls from the previously mentioned sources. Finally, the economic value to the community can be very positive and the activity itself can provide an opportunity for the community to showcase its marine recreation resources.

ENDNOTES

1. Mr. Murray is a consulting resource economist and Research associate in the College of Business at the University of South Florida, Tampa, Florida, and Dr. McHugh is currently a Senior Associate Professor at the Georgia State University College of Business Administration, Atlanta, Georgia.


3. At the time that 250 rental units were identified in Monroe County, the total number of PWC determined to be registered in the county was 1,362 and the total number registered in the State of Florida was 58,207.

4. Ray Dargis, independent PWC repair service operator based on review of his sales and service records.


6. Ibid.

SEA KAYAKS AS VEHICLES FOR SUSTAINABLE DEVELOPMENT OF COASTAL AND MARINE TOURISM

Jerry Wylie
U.S. Forest Service (United States)

Howard Rice
Rice and Associates (United States)

Abstract: Because they are inexpensive, safe, easy to learn, and environmentally friendly, the modern sea kayak has emerged as an ideal watercraft for exploring coastal regions and to observe wildlife in quiet and solitudes. Sea kayaking is one of the fastest growing segments of the marine sport industry and there is a rapidly expanding international market for kayak touring to exotic destinations worldwide. This simple technology has the potential to open up coastal environments the way SCUBA opened up the underwater world.

Four types of kayaking are described: Recreational, Ecotourism, Wilderness, and Adventure. Kayak experiences and participants are defined by various mixes of these four basic types.

Two models are used to illustrate the role of sea kayaking in the sustainable development of coastal and marine tourism. The first is an assessment of the mature sea kayaking industry in Belize, Central America. The second model is Micronesia, where the industry is in an early stage of development. In both cases, information is presented regarding the economic, social, educational, and environmental aspects of sea kayaking in developing countries.

Keywords: sea kayaking, kayak coastal ecotourism, Belize, Micronesia

Sea Kayaking

Sea kayaking began thousands of years ago with the first Aleut and Greenland skin-on-frame boats. Today’s sea kayaks are direct descendants of these early types and are essentially the same boats except for the use of modern construction techniques and materials. They come in two general types: sit-inside and sit-on-top models.

Sea kayaks, also known as “ocean” or “touring” kayaks, are not to be confused with river-running kayaks. These whitewater kayaks are less stable and often associated with river rapids and danger. Although superficially similar, sea kayaks are an entirely different boat. They are much longer, averaging 14–17 ft, are more stable and sometimes have rudders. Sea kayaks are built for one or two paddlers and may be equipped for long distance travel and even sailing. Some sit-inside expedition kayaks have a fabric covering over a metal or wooden frame which allows them to be collapsed for transportation. Although better suited for river use, inflatable kayaks can also be used for touring.

Advantages of Kayaks

Within the last 10 years there has been an explosion of interest in sea kayaking. The reason for the popularity and phenomenal growth rate of this sport is due to its many advantages. These include:
- Safety—sea kayaks are very stable and seaworthy.
- Easy to use— anyone can learn to kayak in minutes.
- Easy to transport and store—no need for mooring or trailer.
- Simple technology—easy to maintain.
- Versatile—can be used on virtually any body of water.
- Low cost—under $1,000 for a quality entry-level boat.
- Good exercise—fits today’s healthy lifestyle.
- Family activity—suitable for all ages.
- Multi-functional—can be used for many different recreational purposes.

The Sea Kayak Market

The primary market for sea kayaking is North American (Canada and the USA). Developing markets are in Europe, the UK, Australia, and Japan.

In 1991 the Specialty Travel Index included 25 companies with 35 trip venues (states or countries). In 1996 this jumped to 61 companies and 112 trip venues. The different destinations and the number of tour operators at each location are shown in Table 1. Although this is just a rough snapshot of the sea kayak industry in North America, it clearly shows the remarkable growth in the sport in the last five years. As indicated by the number of tour operators advertising in 1996, the major kayak destinations are:
1. Canada/Continental USA (37)
2. Oceania (Pacific islands, Australia, NZ) (24)
3. Central America (16)
4. Asia (14)
5. Mexico (13)
6. Caribbean (6)

Although not as popular for the North American market, other major sea kayaking destinations include Scandinavia, the United Kingdom, and continental Europe.
Table 1. Sea kayak destinations advertising in the 1996 specialty travel index.

**Sea Kayak Destinations**

**Advertising in the 1996 Specialty Travel Index**

(Number of operators shown in parentheses)

<table>
<thead>
<tr>
<th>* Alaska (17)</th>
<th>* Greece (1)</th>
<th>* Philippines (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Australia (8)</td>
<td>* Greenland (1)</td>
<td>* Portugal (1)</td>
</tr>
<tr>
<td>* Bahamas (1)</td>
<td>* Guatemala (1)</td>
<td>* Scotland (1)</td>
</tr>
<tr>
<td>* Baja California (7)</td>
<td>* Hawaii (4)</td>
<td>* Solomon Is. (1)</td>
</tr>
<tr>
<td>* Belize (6)</td>
<td>* Honduras (2)</td>
<td>* Tasmania (1)</td>
</tr>
<tr>
<td>* British Columbia (5)</td>
<td>* Irian Jaya (2)</td>
<td>* Thailand (6)</td>
</tr>
<tr>
<td>* British Virgin Is. (2)</td>
<td>* Maine (1)</td>
<td>* Tonga (1)</td>
</tr>
<tr>
<td>* Bolivia (1)</td>
<td>* Mexico (6)</td>
<td>* Trinidad (1)</td>
</tr>
<tr>
<td>* California (4)</td>
<td>* Michigan (1)</td>
<td>* Utah (1)</td>
</tr>
<tr>
<td>* Chile (2)</td>
<td>* Mongolia (1)</td>
<td>* Vietnam (1)</td>
</tr>
<tr>
<td>* Costa Rica (7)</td>
<td>* Montserrat (1)</td>
<td>* Washington (1)</td>
</tr>
<tr>
<td>* Dominica (1)</td>
<td>* New Zealand (4)</td>
<td>* Wisconsin (1)</td>
</tr>
<tr>
<td>* Fiji (4)</td>
<td>* Papua New Guinea (3)</td>
<td>* Wyoming (2)</td>
</tr>
</tbody>
</table>

Table 2. Summary of sea kayaking attractions in Micronesia.

**Summary of Sea Kayaking Attractions in Micronesia**

<table>
<thead>
<tr>
<th>Kosrae</th>
<th>Pohnpei</th>
<th>Palau</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Large mangroves</td>
<td>*Nan Madol ruins</td>
<td>*Rock Islands</td>
</tr>
<tr>
<td>*Mangrove channels</td>
<td>*Reef islet camping</td>
<td>*Extensive lagoon</td>
</tr>
<tr>
<td>*Terminalia grove</td>
<td>*Large mangroves</td>
<td>*Marine lakes/jellyfish</td>
</tr>
<tr>
<td>*Lelu ruins</td>
<td>*Protective lagoon</td>
<td>*Babeldaob Island rivers and waterfalls</td>
</tr>
<tr>
<td>*Mariculture center</td>
<td>*Ant Atoll</td>
<td></td>
</tr>
<tr>
<td>*Outrigger canoes</td>
<td>*Mountain hikes</td>
<td>*Dugong and crocodiles</td>
</tr>
<tr>
<td>*Walung village</td>
<td>*Outrigger canoes</td>
<td>*Yapese stone money</td>
</tr>
<tr>
<td></td>
<td>*Cultural centers</td>
<td>*WWII sites and planes</td>
</tr>
<tr>
<td></td>
<td>*Swimming in rivers and waterfalls</td>
<td></td>
</tr>
</tbody>
</table>
Size of the U.S.A. Kayak Market

Recent data from the National Survey on Recreation and the Environment (NSRE, 1995) showed that an estimated 2.6 million Americans, or 1.3% of the population, age 16 or older kayaked at least once during 1994–95. Although this number includes both sea kayaking and whitewater kayaking, the vast majority are assumed to be sea kayakers.

The Trade Association for Sea Kayaking (TASK) estimates that there are 300,000 active sea kayakers in the USA and that approximately 75,000 boats were produced or imported into the U.S. in 1995. These data are sketchy at best because many companies are unwilling to release these numbers for fear of encouraging new competition within the industry.

Sea Kayaker Psychographics

A cursory review of the advertisements of 40 kayak businesses in the April issue of Sea Kayaker magazine suggests that the North American kayak touring market can be characterized by an interest in the following (in order of importance): ecotourism/educational travel, wilderness or pristine areas, soft adventure, improving paddling skills, hobbies and other outdoor recreational activities, and hard adventure.

Types of Kayak Tourism Products

Sea kayak tours can take many different forms. They range from hourly rentals and day trips for snorkeling, birdwatching, and exploration to multi-day excursions. Multi-day trips can either be point-to-point, or base camps which allow more time to explore a particular area. Accommodations can include tent camping, live-aboard boats, rustic cabins, hotels or resorts, or home-stays. Currently, most sea kayak outfitters prefer camping or a combination of camping and developed facilities.

Potential Niche Markets for Sea Kayaking

We have tentatively identified four basic types of sea kayaking each representing a potential niche market. Based largely on the work of Paul Eagles (Eagles 1995) (see Table 3), they are a useful way to differentiate the kayak touring market. They are briefly described below. A more detailed discussion is provided in Wylie and Rice (1996). These categories are not mutually exclusive and there will be overlap between them. Various combinations will provide the package of experiences and personal benefits desired.

Recreational Kayaking

Outdoor recreation to enjoy nature, to relax, and to have fun, frequently in the company of others. The level of physical risk and challenge is low. Aerobic exercise, pursuing hobbies and learning or refining kayaking skills can be important motivations. Primarily a daytime activity.

Ecotourism Kayaking

Participants are primarily interested in improving their knowledge and discovering nature through high quality information and observing unusual or spectacular species and ecosystems, such as whales, coral reefs, or tropical rain forests.

Wilderness Kayaking

Intense, personal experiences in a setting free of the obvious evidence of human impacts. Challenges and risks are moderate and an important part of the overall experience, as are solitude and primitive camping.

Adventure Kayaking

The experience focuses on challenge, thrills, excitement, and personal accomplishment by overcoming nature and sharing this experience with others. Involves travel typically to remote places known for their natural beauty and physical attributes. The level of physical effort and risk ranges from moderate in "soft" adventure to high in "hard" adventure kayaking.

Belize and Micronesia—Two Models for Sea Kayaking

Belize and Micronesia (Figure 1) are used to illustrate the role of sea kayaking in the sustainable development of coastal and marine tourism. Belize is an established sea kayak destination. Micronesia represents areas in the early stage of development. There are some striking similarities and marked differences between these areas.

Parallels between Belize and Micronesia

- Relatively small land area with developing economies.
- Limited resources and growing populations.
- World-class reef and rain forest ecosystems as tourist attractions.
- World-class kayak venues.
- Heavy emphasis on tourism, especially SCUBA diving.
- Interest in ecotourism as an economic development option.
- Strong traditional cultures.
- Major archeological ruins.
- Opportunities for reef/jungle combination tours.
Differences between Belize and Micronesia

- The U.S.A. is Belize's major tourism market.
- The U.S.A. and Japan are Micronesia's major tourism markets.
- $400 airfare for U.S.A. gateway cities to Belize.
- $1600 airfare for U.S.A. gateway cities to Micronesia.
- Belize kayak tours are primary attractions.
- Micronesia kayak tours will be primary attractions and add-on tourism products.
- Belize sea kayaking emphasize Adventure and Wilderness niche markets.
- Micronesia sea kayaking will probably emphasize Recreational and Ecotourism niche markets.

Sea Kayaking in Belize

Although still only a small part of the total tourism market, kayaking and combination kayak/jungle tours are becoming very popular in Belize. Outfitted sea kayak touring in Belize began approximately 12 years ago with one small operation in Placencia Village. Today, there are seven outfitters operating in Belize that specialize in sea kayaking and combination kayak/jungle trips.

A survey of sea kayak businesses operating in Belize shows a steady growth rate for the past five years. Between 1991 and 1995 the number of kayakers increased by over 400%. Annual increases range between 21% and 82%.

<table>
<thead>
<tr>
<th>Year</th>
<th># of kayakers</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>320</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>485</td>
<td>51%</td>
</tr>
<tr>
<td>1993</td>
<td>885</td>
<td>82%</td>
</tr>
<tr>
<td>1994</td>
<td>1,120</td>
<td>27%</td>
</tr>
<tr>
<td>1995</td>
<td>1,354</td>
<td>21%</td>
</tr>
</tbody>
</table>

We estimate that sea kayaking and related tourism in Belize generates nearly US$2,000,000 annually in gross revenues. Since there are no locally-owned sea kayak operations, a large part of this goes to the foreign owner/operator. However, perhaps as much as 60% is spent locally. The economic benefits of these dollars is felt throughout the country as the sea kayak operators purchase food and supplies, pay local employees, hire boats, and patronize local hotels and restaurants. Local guides, drivers, boat operators, fishermen, and other Belizeans involved with kayaking also spread these dollars to villages and towns throughout the country.

Challenges and Potential Impacts of Sea Kayaking in Belize

Sea kayaking in Belize appears to have little negative impact on the environment. All companies practice low-impact camping on small islands and camp only with permission from landowners. Kayakers do travel into more remote regions unused to outsiders. However, contacts with locals seem to be positive as long as local customs are respected.

Tourism, including kayak tourism, has developed so quickly that local officials are still reacting to the changes the growth has brought to Belize. Among these challenges are training and certifying guides and other tourism-related personnel. In addition, collecting permit fees from operators, policing national preserves where kayakers travel, and establishing designated camping areas on outlying atolls all need to be addressed.

Kayaking Opportunities in Micronesia

Except for a single small operator in Palau, there are currently no commercial sea kayak products available in Micronesia. However, sea kayak operators are being seriously considered in Kosrae, Pohnpei and Yap.

The Supply. In 1995, an assessment of sea kayaking opportunities was conducted on Kosrae, Pohnpei, and Palau (Wylie and Rice, 1996). All three islands were found to have excellent opportunities for high quality sea kayaking (Table 2). Individually and collectively, they can supply a wide range of opportunities for the Recreational and Ecotourism kayak niches. Although there are fewer opportunities for Wilderness and Adventure kayaking, these types of experiences can also be found. Actual trips will be a combination of these four types.

The Demand. We anticipate the primary demand for sea kayaking in Micronesia, for the short term and long term, will be for Recreational and Ecotourism kayaking experiences. This will include both day trips and multi-day tours. Recreational kayaking may actually provide the foundation for all other niches, with the closest connection being with Ecotourism kayaking. Since the attractions for these niches are very similar, considerable overlap between these activities is expected.

There will be two basic types of markets for sea kayaking in Micronesia: 1) Tourists who come for reasons other than kayaking, and 2) Visitors who are primarily attracted by kayaking. We recommend selling add-on kayak tours to those who are already coming to the islands and developing high quality kayaking tours and advertising to specifically attract kayakers. Types of groups who might be interested include environmental organizations and schools that specialize in outdoor leadership, wilderness therapy, survival, or environmental education. Nationalities that will be most interested are the Americans, Canadians, British, Germans, Australians, and New Zealanders. The Japanese may also be a target market, especially Young Office Ladies and members of sports clubs.
Table 3. Potential sea kayak niche markets (Enges, 1994).
Critical Elements for Success. With its world-class natural resources, Micronesia has the opportunity to become one of the best known sea kayak destinations in the world. The most critical steps to achieve this goal are:

1. Proper information and assistance for independent kayakers who are presently discovering this region.
2. Development of local kayak tour operators with professionally-trained guides and high quality equipment.
3. Property packaged, multi-island tour products.
4. A coordinated marketing plan with a minimum commitment of 5 years.

Forest and Cultural Connections. Many forest attractions are not found elsewhere and give Micronesia an advantage over other kayaking destinations. These involve “user-friendly” mangroves and forest sites, such as the giant Terminalia and mangroves on Kosrae and Pohnpei. A forest-based marketing strategy would position Micronesia as being different from other tropical kayaking destinations.

The people and cultures of the region are unique and should not be overlooked when designing and advertising tour packages. These are things that are very common to locals but are extraordinary to visitors. They include language, architecture, outrigger canoes, food, crops, clothing, tattoos, crafts, and church activities. In particular, kayaking can support traditions of making and using outrigger canoes. Sea kayak tours that combine modern kayaks and traditional outriggers would have an added dimension that is not available in most other destinations.

Conclusions

What Can Micronesia Learn From Belize?

There are several things Micronesia can learn from Belize. First and foremost, they can minimize potential impacts and maximize potential benefits through proper planning and preparation. Once kayak tourism dollars begin to flow, it will be difficult to alter the course of the industry. Second, to encourage the development of locally-owned kayak operators and professionally-trained local guides. Third, they can be aware that kayakers are not all the same. Develop unique products that serve all four kayak niche markets and connect visitors to forest and cultural attractions.

Sea Kayaking as a Tourism Strategy in Small Developing Countries

There are several advantages for adopting sea kayaking as a tourism development strategy in small, developing countries: 1) A relative small investment is needed ($15,000–$20,000). 2) Unlike SCUBA diving, it does not require highly technical training or equipment or critical safety standards to maintain it. Because it is based on simple, human-powered equipment, a kayak operation can function in areas where there is no technological support or expertise. 3) It can operate in virtually any area with good quality marine, lake, or river environments. 4) It fits well with and supports traditional fishing/water-based cultures and communities. 5) It attracts the “right” kind of visitors who are interested in and respect the local environment and culture; and 6) It has greater potential to distribute benefits to rural areas. These benefits include profits, jobs, camping and entrance fees, taxes, tourism diversification, environmental education, resource conservation, and preservation of cultural traditions.

However, there are a few cautions: 1) Sea kayaking will not be a high-volume business; and 2) Sea kayakers will expect and demand a high-quality experience, including pristine environments, high-quality equipment in good condition (especially sit-inside kayaks), good interpretation, and professional tour guides.

Natural Connections Between the Sea Kayaking and Dive Industry

Divers are natural customers for kayaking. They are athletic and comfortable in water, they like adventure, they are frequently interested in wildlife and coastal environments, and they have free days before and after flying when they cannot dive for safety reasons. Kayaking can also provide supplemental business for diving operations during low seasons. Not only can sea kayaks help diversify existing SCUBA operations, as add-on products for divers and non-diving partners, they are ideal vehicles for connecting divers with forest- and culture-based tourism. In addition, specialized kayaks can directly enhance diving opportunities by transporting SCUBA divers to otherwise inaccessible dive sites.

Kayaking can take advantage of a truly fascinating environmental niche: the intersection of sea and land. These shallow waterways are underutilized and underappreciated, yet they contain important resources and world-class attractions. The problem is access and awareness. These special places have been difficult to reach and largely ignored, until now. Kayaks could easily open up coastal mangrove and rain forest environments the way SCUBA opened up the underwater world. Areas like Belize and Micronesia are well-positioned to be leaders in the development of this “new frontier” in tourism.

References

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SEACANOE THAILAND-LESSONS AND OBSERVATIONS

John “Caveman” Gray
Srinakharinwirot University, Bangkok (Thailand)

Abstract: SeaCanoe is an internationally acclaimed, locally owned “Ecodevelopment” laboratory, proving that (A) local people can manage a sustainable “Ecotourism” project and (B) profitability with self-imposed volume controls, professional standards and enlightened management is possible in ASEAN.

With a dramatic new expedition genre, “Tidal Sea Canoeing,” SeaCanoe attained its self-imposed volume limits in only two years. SeaCanoe then began turning away overflow bookings. Despite the complexity and dangers involved, opportunistic copy-cats immediately began operations. These “Eco-pirates” openly admitted they were operating in sites with no knowledge of conservation, natural history or sea kayaking. (“I know what I’m doing is wrong,” claim several Eco-pirates, “but there is no law to stop me.”) Businessmen rather than conservationists, their only interest is cutting costs and maximizing profits.

Cave volume currently exceeds 500% of suggested limits—with no safety or conservation concerns. Government guidelines remain nonexistent.

“Eco-pirates” create serious issues, especially in Asia's climate of piracy and unsubstantiated marketing claims. Can international standard sustainability survive low-cost high-volume, high profit copy-cats? Will “Eco-pirates” ultimately destroy the Planet's few remaining pristine habitats?

Solutions exist, but require government cooperation. Unfortunately, Ecotourism consultants frequenting the region remain generally poor, yet somehow ASEAN must learn to implement master planning prior to Ecodevelopment.

Prospective operators and bureaucrats must jointly develop business structures, professional standards, nature interpretation, volume limits, marketing and permitting criteria that protect local villages, adjacent habitats and original entrepreneurs before beginning operations. Work permit and business formation programs encouraging responsible Ecodevelopment should encourage joint ventures between village owners and sincere “Ecodevelopers.”

Keywords: Thailand, ecodevelopment, sea kayaking

The Scenario

SeaCanoe was established in 1990 to serve as an ideal conservation-based “Ecodevelopment” model. One goal of the experiment is to see if a purely private company can make things “right” can flourish and prosper. Operating in small tidal sea caves the company “discovered,” volume limits became a cornerstone of SeaCanoe policy.

Since tidal sea caves—filled with rapid tidal currents, fragile stalactites and yet-to-be studied Ecosystems—are a new genre, SeaCanoe was cautious. Trip size went from two to four to eight to ten and finally twelve passengers per day. As demand grew, local partners (who invested none of their own money in SeaCanoe) argued that the caves could carry fourteen passengers per trip. Experiments proved the increase was acceptable, but larger groups would experience cave congestion, especially on fast-moving spring tides.

Gliding across the water with a “No Touching, No Talking, No Smoking” policy closely supervised by highly trained guides, SeaCanoe can access cliff-lined tidal lagoons through tidal sea caves with no environmental impact. Body heat and lighting create adverse impact in dry caves, but are not a factor in sea caving—body heat is absorbed and carried out with tidal currents; passengers carry handheld dive lights.

Economic Response to Self-imposed Volume Limits

As demand grew, SeaCanoe operations manager Soonthorn “Mut” Sagulsan, devised a trip schedule where two escort boats, each with 14 passengers, visited completely different sites. Trips would never even see one another. The system worked, and SeaCanoe increased capacity to 28 passengers per day. Market demand was now great, and a third escort boat was tried.

SeaCanoe discovered that while boats might meet at lunch stops, discrete programs could still be designed for each trip. When one manager knowledgeable in tidal sea caving set daily programs, there were still no trip overlaps or environmental impact. The greatest concern was taming the crab-eating macaques and white bellied sea eagles in the lagoons. The wild macaques were “learning” the kayaks, voluntarily approaching tours out of curiosity.

Capacity was 42 passengers per day. Most partners agreed there were no new options to increase capacity while maintaining environmental responsibility.

SeaCanoe is a great new concept in adventure travel—an ideal Ecotourism model with exciting and innovative new economics.

—Dr. John Hemming, director, Royal Geographical Society, London
Once this self-imposed capacity was attained, one partner argued vigorously for unrestricted volume. A Thai-Chinese university graduate from Bangkok nicknamed “Susa Non” (“Sleeping Tiger”) because he never learned kayaking, sea caving or conservation concepts, Sleeping Tiger’s strictly monetary arguments were refuted by both Western advisors and local partners.

Subsequently, Sleeping Tiger attempted a take-over and eventually left the company to set up the first copy-cat operation. Since Sleeping Tiger never learned SeaCanoe’s tidal technology, he took along one of his own hires, a suspended heroin addict guide SeaCanoe put through four rehabilitation programs. After the addict showed the new staff how to follow SeaCanoe, he was fired. A month later, the new copy-cat operation also fired Sleeping Tiger, who went on to form a second copy-cat. He was fired from that company after formation as well.

Two more Thai companies were formed for a total of four Thai-owned copy-cats. One Western dive operator also offers small scale trips for his guests, but consciously tries to avoid crowded sites. Although this operator has no sea kayaking training, his operations are not an environmental factor.

However, six companies now book up to 150 guests per day in small caves that can open and close with the tides in as little as eight minutes. SeaCanoe reached the sites’ viable carrying capacity—42 passengers per day, before any other companies were formed. Any added volume degrades the experience and the environments. Even worse, these “ecopirates” are neither kayakers, cavers or conservationists, so the 100 plus entries a day they generate are not environmental responsible. The ecopirates offer no staff training and pay low wages that force their staff to “work the tip” by allowing their guests to sing in the lagoons, climb mangrove trees, smoke, take live seashells and stalactites as souvenirs.

Ironically, SeaCanoe marketing is so strong that the trademark became a generic term—all Phuket visitors who want a trip ask for “SeaCanoe” (and all the ecopirates claim they are the original “SeaCanoe”). Ironically, if SeaCanoe owners had violated their own self-imposed limits and accepted unlimited bookings within the SeaCanoe format, environmental impact would be reduced.

SeaCanoe continues true to its word—volume is now 16 guests per trip, but no more. Every day, sales staff see their “turn aways” at the dock with another operator. Especially in Thai society, these owners and staff deserve great respect for their resolve with volume controls.

This one point alone proves that no original operator in ASEAN societies can live up to their environmental principles without the assistance of government protections. In Asia, unscrupulous copying of Western creativity is often regarded as a status occupation. Volume limits—especially self-imposed—are regarded as foolish. In the eyes of the Asian yuppy entrepreneur, a responsible operator practicing self-imposed volume limits exists to be exploited.

It should be noted that prior to commercializing the caves, SeaCanoe met with Marine National Park officials and presented the above case. Commercialization began only after Park officials agreed to limit entries. To date, no attempt has been made to set professional standards or limit entries.

In this case, at least, various Thai agencies are consistently derelict in their duties. Even the Tourism Authority of Thailand—whose mandate is promoting tourism—only became actively involved once the issue became an international embarrassment. T.A.T. officials now claim they have no legal authority to implement controls.

Need for Government Regulations

In one sense, the SeaCanoe experiment is a failure. An attempt was made to prove that industry-wide self-policing would eliminate the need for government regulations. In the West, where sea kayaking trips are run by actual sea kayakers, this scenario may be possible. However, in Asia, where sea kayak tours are run by ruthless opportunists, strong government regulations backed by tough enforcement are required. Without non-corruptible, conservation-focused and well enforced planning, unregulated “nature” tours will over-impact the habitats the “original” is trying to protect.

Worse yet, these micro-planning scenarios are only precursors of the larger problem. Without master planning, there is no hope for ASEAN environments, marine or terrestrial. For example, this author suggests that without immediate, well enforced environmental planning, the entire Mekong Basin will be devastated within 15 years. By 2010, the waters of the Mekong will not even reach the Vietnamese border, let alone the South China Sea. A blend of two planning models provide the only hope for South-East Asia.

The first model, the State of Hawai’i Marine Resources Management Plan, combines the input of academics, governments, commercial operators and recreational users.
however, it works only in a non-corruptible society that encourages citizen participation. Most South-East Asian cultures suppress citizen participation, particularly where rural villagers must stand up to "Coat-and-Tie" Capital City entrepreneurs. Of course, Asian bureaucracies operate on the principle of corruption, which also taints objective master planning.

The second model is the Municipality of Puerto Princesa in Palawan Province, the Philippines. Mayor Edward Hagedorn, now in his second term, uses both the gun and the courts to strictly enforce laws against dynamite and cyanide fishing, illegal logging, traffic, litter, firearm and drug laws with an iron fist. Puerto Princesa's Baywatch program, administered by the Mayor's father-in-law, has been shot at, bombed with dynamite and threatened with death, but they have established Princesa's waters as a "Safe Zone" where illegal fishing boats are confiscated and environmental violators—including national level officials—either go to prison or pay stiff fines.

Puerto Princesa is the fastest growing municipality in the Philippines, with inbound migration from throughout the nation. "Puerto is clean and orderly" is the number one reason given by immigrants for moving to Princesa.

Professional Standards and Volume Controls

On the open sea, there is little need for volume controls. However, one must eventually contact land. In the sea kayaking industry, put-ins and take-outs, campsites, waterfall hikes, etc., might be sites requiring volume controls. Land caves are so complex, fragile, and constructed that they always require volume controls. Sea caves are no exception. Limestone tidal sea caves cannot survive without them.

The only question is how much volume can each cave responsibly accept. In ASEAN societies, scientists determine carrying capacity.

Professional Standards are developed to insure customer safety and environmental responsibility. When services are for hire, standards help "guarantee" that the provider actually knows what they are doing. This guarantee is even more important in societies where false advertising claims go unchallenged and guides think they are experts after three days on the job.

Protecting Local Villagers & Habitats

Community-based nature tourism strives for rural prosperity through environmental protection. To achieve this, villagers must have a vested economic interest in habitat protection. Conservation must generate more revenue for the village than illegal logging or cyanide fishing, or the program will not be sustainable.

Unfortunately, rural villagers have little business knowledge, know nothing of professional standards, and have an almost hopeless chance of marketing to Westerners. If they do achieve success, they draw the interest of the big city entrepreneur, in Thai, "Naw Wai Laang Lok," the "Man with the Long Pants."

These fellows have investments in many industries. Their own criteria—that they maximize return on investment. They don't care if it is a hotel, steel mill or Ecotourism operation. If they achieve a handsome return, they will be there—and they ruthlessly exploit their own countrymen far worse than any Westerner. Good hearted but naive villagers don't stand a chance.

It should be noted that while the "Naw Wai Laang Lok" may steal the business, in many cases the greatest exploiters of rural villagers are the large American "Ecotourism" companies who print a fancy brochure and overcharge adventure trip by up to 300-400%. Both rural villagers and Western customers are ripped off so the staffs of Bay Area wholesalers can drive imported cars and travel business class with Gucci luggage.

In a perfect, incorruptible world, professional standards limit industry access to people who are at least willing to learn an activity. PADI is remiss for not requiring an experience requirement, but at least people have to know what a regulator is before they are allowed to guide or teach SCUBA. The same concept should apply to all nature-based tourism activities—especially on the sea. A commercial boat captain is well credentialed; why not a sea kayak guide, who depends upon muscle power and cannot be in every kayak?

Villagers, especially local fishermen, are immensely talented seamen and easily adapt to sea kayaking with proper training. Professional standards are easily obtainable to these people, and help keep the industry in their hands, away from the "Naw Wai Laang Lok," an extremely important point in Asia.
Suggested Permitting and Business Formation Concepts

As with the Hawaii Marine Resources Plan, scientific surveys should form the basis of any master plan. In South East Asia’s limestone, particular emphasis must focus on limestone structures, especially sea caves. Suggested activities along with carrying capacities might be recommended for each particular site, available to qualified operators only by permit. Qualifications might include international standard “activity” credentials such as PADI provides for SCUBA, an environmental credential, lifeguard, first aid, and the basic national tour guide credential.

User fees of 2–5% of trip should go into special “fishbowl” funds earmarked for enforcement and permit oversight. To avoid corruption and inefficiencies, user fees should never go into general funds. Each country should form an “Untouchable” corps of environmental enforcers. In Thailand, this may be a special unit of the King’s guard. In other ASEAN countries, it should report directly to the head of State.

ASEAN countries have provisions for outside entrepreneurs, but requirements and bureaucracies are set up to work permit multi-national corporate executives. The process should be adapted to accommodate nature tourism “coaches.” At the same time that work permit and partnership requirements should be loosened, countries accepting these coaches should provide a screening process to guarantee the professional claims of each applicant.

Strategies for Ecodevelopment

Each country must develop its own style of Ecotourism matchmaking. Bureaucratic excuses aside, the ASEAN country offering the best business formation and applicant screening systems will produce the most top-quality Ecodevelopments. That country’s villagers and Ecosystems will be the region’s major beneficiaries.

The Coach

Virtually all adventure and nature tourism programs require an outside coach to achieve international standards of activities, service, nature interpretation, management and marketing. For example, Thai domestic ecotourism efforts are encouraging, but light years behind international standard. They lack themed nature interpretation or experienced experts in activities such as white water rafting, caving or sea kayaking. In disciplines where academics still do not understand the basics, we simply cannot expect an untraveled villager with a fourth grade education to know how to serve or market to Europeans or Americans.

Like it or not, a coach is a pragmatic necessity, and if a country truly wants community-based nature tourism, they must develop a planning system that matches up the local villager with access to sites with the coach with expertise in an activity and the vision to succeed commercially.

Local entrepreneurs with a sincere commitment to Nature tourism could form an efficient third point in the “Coach-local villager” team. However, environmentally concerned entrepreneurs are a rare animal even in the West. In almost seven years in Thailand, we know of only one Thai entrepreneur who is in the “Ecotourism” industry to satisfy conservation goals.

Also, a basic concept for environmental regulation is that you can not turn back the clock. Once in, it is difficult to force operators out—no matter how bad they may be. Stringent professional standards are the only possible option to eliminate existing, low quality ecotourism. Therefore, master planning must be accomplished prior to ecodevelopment.

Criteria might include:

- Economic needs of a particular village
- Need for neighboring habitat protection
- Ability to protect existing cultures
- Commercial viability of the site

Once master planning is in place, it can be enforced with permitting by a non-corruptible high level public board such as the Palawan Council for Sustainable Development, a permitting body headed by Gov. Salvatore Socrates that also includes several national level cabinet ministers and department heads.

The Council considers each commercial application on a case-by-case basis against the Palawan Master Plan for Sustainable Development, and issues specific and stringent guidelines with each commercial permit. Operators not following these custom-made guidelines face the loss of their permit.

“Joint Venturing” with National Development Planners

If “community-based tourism” or “adventure travel” or “ecotourism” is to achieve the promise of habitat conservation via commercialization, extreme cooperation is required. Bringing together free lance environmental
Entrepreneurs with high level ASEAN bureaucrats in a non-corruptible system may be an insurmountable task. Unfortunately, it is the only hope we have.

Sad Realities

When SeaCanoe began operations in 1990, 90% of Thailand’s mangrove had been lost since 1900. In the past five years, shrimp farms have claimed another 7% of the remaining 10%. In the Philippines, large fish are rare even in protected reefs. Most Philippine reefs—and almost all Indonesian reefs—have been dynamited, bleached and cyanided. In Vietnam’s Halong Bay—a World Heritage Zone—islands are dynamited above the waterline for construction materials. Fishermen in all these countries complain of smaller and smaller catches.

There is virtually no environmental awareness in ASEAN’s emerging economies. One of Thailand’s best hopes is Khun Pradech Phayakvichien, the Tourism Authority of Thailand Deputy Governor for Planning. However, other T.A.T. executives argue that SeaCanoe should be happy—we have created five other companies, dozens of jobs and sea canoeing has a major impact on Phuket’s economy. Never mind that there is not a single trained kayaker outside SeaCanoe. The Ecopirate owners all prefer a round of corruption golf with a bureaucrat to actually kayaking.

With all Thai ecopirates speaking out against professional standards and volume controls, no government agency has the conviction or responsibility to develop standards, or implement volume controls—at least of all the National Park Service, the ultimate landowner. After initially agreeing to accept SeaCanoe’s self-imposed volume controls, every Ecopirate has been allowed to operate with no controls whatsoever. When SeaCanoe located and released gibbons on a pristine island, the NPS guards assigned to guard the gibbons began poaching timber. A recent World Heritage survey team of Thai academics dropped Phang Nga Bay on the basis of over-commercialization and lack of planning. (Combined sea kayaking operations bring no more than 150 of the several thousand park guests per day.)

It takes a marriage of sincere, non-confrontive, altruistic, Western, environmentalists cooperating with their local NGO counterparts, sincere and sophisticated local entrepreneurs, and their village partners (who readily adapt to conservation once exposed to the concepts) working together with sincere bureaucrats to develop the system required to save ASEAN’s magical marine environments.

The concept may seem impossible, the task insurmountable, but after seven years of practical experience, such a system seems to be ASEAN’s only environmental hope. Unfortunately, at the rate things are going, ASEAN habitats will be lost long before they are discovered.

Addendum 1

THE NATION, Section A-8, Thursday, June 9, 1994

Asia ‘Key to Planet’s Environmental Salvation’

Reuter, MANILA—The battle to save the planet from environmental destruction will be won or lost in Asia, a top conservationist has told a conference on biodiversity conservation in Manila.

“Asia has become the primary engine of world growth,” said Maurice Strong, secretary-general of the 1992 Earth Summit in Rio de Janeiro. “But there is a real danger that many Asian nations will repeat the patterns of environmental destruction which characterized [the West’s] industrial revolution.” This, he said, would be “patently disastrous.”

There is little hope of a global shift towards development that pays attention to environmental concerns unless Asia does so.

“But any visitor to [the Asia-Pacific region] today could not help but be concerned at the lack of any great evidence on the ground of this increasing awareness and commitment at the policy level,” Strong said.

“It would be no exaggeration to say that the battle to save our planet—will be won or lost in Asia,” he said.

Strong, currently chairman of the Earth Council set up after the Rio Summit, was speaking during a three-day Asia Pacific Conference on Biodiversity Conservation at the Asian Development Bank headquarters in Manila. He said there was little evidence, at least at the level of governments, of any major changes since the Rio conference.

The fundamental shift in attitudes necessary to stop the world from dying has not taken place, he said. “Fundamental change does not come quickly or easily,” he said, adding that there were still grounds for hope. However, he added that more progress has been made outside government circles.
"There has been less progress than we wanted from governments, but more than we expected from citizens," he said.

Addendum 2

TWO YEARS FROM PATTAYA: IS THERE ANY PROGRESS?

On Tuesday, August 9, 1995, Mr. Noah Shepherd, General Manager of Sea Canoe Thailand, Ltd. delivered a presentation entitled "Sustainable Development of Tourism: Case Study from Phuket, Thailand." According to conference proceedings, The South East Asian Seminar on the Management of Coastal Cities and Towns (Localizing Agenda 21) was organized by the Advisory Committee on the Protection of the Sea (ACOPS), the local government Development Foundation (LOGODEF); International Union of Local Authorities, Section for the Asian and Pacific Section (IULA-ASAPAC) Jakarta; Urban Management Programme (UMP) of the United Nations Center for Human Settlements (UNCHA-Habitat); The World Bank and the United Nations Development Programme; Regional Coordinating Unit for East Asian Seas Action Plan of the United Nations Environment Programme (RCU/EAS of UNEP); the Intergovernmental Oceanographic Commission (IOC) of UNESCO, the City of Pattaya, with the assistance of the Government of Sweden.

"The main objective of the seminar is to enable local authorities in the South East Asian region to address the issues of coastal resources protection and ultimately to enable them to formulate and implement coastal zone management plans in their respective jurisdiction."

As capsuled on page 11 of the Seminar's "Summary of Proceedings," Mr. Shepherd's talk covered the following basic concepts: "Mr. Shepherd gave a background for the establishment of Sea Canoe Thailand Company, a company based in Phuket, Thailand which specializes in recreational adventure tourism and which gives priority to the conservation of the environment. He made mention of some salient features that contributed to the success of the company such as involvement of local share owning staff and managers. He underscored that Sea canoe has evolved into an active environmental campaign having put into practice its principle of putting the environment above profit. According to him, the company provides high quality recreational adventures specializing in natural history and cross-cultural education. As an eco-tourism environmental campaign, he stressed that visiting guests have to adhere to a strict set of rules in such pristine sites as caves. Such rules involve the no touching, no talking, no eating, no drinking, no smoking and no collection of souvenirs in order to preserve these historic places."

Before concluding on August 10, 1994, the Conference adopted a "Declaration on the Management of South East Asian Coastal Cities and Towns," becoming the official policy of participating agencies. The participating organizations strongly encouraged local authorities to adopt the guidelines include the following "Recommendations on sustainable eco-Tourism."

Page 28 of the Conference proceedings addresses "effective environmental eco-tourism." These criteria and strategies are remarkably parallel to positions conceived and subsequently substantiated by the SeaCanoe model:

1. Involve local people in planning, management and ownership of projects.
2. Understand and preserve local customs.
3. Prioritize the actions required for preservation of the local environment.
4. Prioritize a platform for the environmental education of local people and visitors.
5. Provide trained and qualified staff to facilitate the establishment of an Eco-tourism business.
6. Introduce internationally-recognized standards of safety.

Local and national governments should:

- Discourage any commercial development within national park boundaries unless that commercial development helps fund and maintain the park and does not already affect the environment.
- Provide zoological or botanical sanctuaries, or both, within sensitive areas.
- License any commercial establishment using the guidelines as in one to six above.
- As necessary, allocate zones in which operators can carry out business.
- Set volume limits for environmentally-sensitive areas.
- Provide a public education programme to encourage environmental awareness.

For a full copy of seminar proceedings, contact:
Dr. Channiem Vorratrichaiph, Project Coordinator
Thailand Environmental Institute (TEI)
210 Sukhumvit 64
Bangchak Refinery, Building 4
Prakanong, Bangkok 10260 Thailand
KAYAKING PARADISE:  
DEVELOPING KAYAKING AS A  
TOURISM ACTIVITY IN THE  
REPUBLIC OF PALAU  

Lisa M. King  
University of Hawaii Sea Grant Marine Extension  
Palau Community College Cooperative Research and Extension (Palau)  

Abstract: Kayaking experts increasingly agree that the best warm water tour kayaking in the world is in the Republic of Palau. Visitors paddle in clear blue lagoons for a chance to view sea turtles, sunken sea planes, explore secluded sea caves, or land on palm-shaded beaches and admire Palau’s phenomenal scenery. For the more adventurous, river kayaking offers opportunities to view stunning waterfalls, or, in the quest mangrove channels, spot an endangered crocodile. Nowhere else can a visitor find such a diverse array of easily accessible kayaking options as Palau.  

Kayak companies are discovering and actively promoting a new spectrum of previously unknown, overlooked, or rarely used coastal and marine sites with high visitor appeal. Previously, visitation to these areas had been regulated by access problems, tour guide awareness of the site and the ability to find its actual location. Increased visitation to particular sites carries with it concerns about minimizing visitor impacts and enhancing visitor safety. Although present kayak companies are careful concerning site usage and are self-regulating, as key site information becomes common knowledge, oversee by other tour companies will become a problem.  

As Palau moves to diversify its tourism base away from diving and into a variety of other low impact sustainable activities including kayaking, general tourism guidelines and regulations as well as specific tour guide education requirements need to be developed and adopted. Recommendations concerning the carrying capacity of certain visitor sites, as well as decisions concerning the quality of a visitor's experience while at these sites, need to be addressed before detrimental impacts occur to these beautiful and often fragile areas.  

Keywords: kayaks, kayaking, Republic of Palau, Micronesia, tour guide education, diving  

Background  

The Republic of Palau is a stunning archipelago of over 500 lush jungle-covered islands nestled in the Western Pacific. Located south of Guam, north of New Guinea and east of the Philippines, the island nation is part of the Caroline Island Group of Micronesia. With a population of only 15,000 (U.S. Bureau of the Census, 1990), Palau remains a relatively unspoiled paradise above and below the water in the eyes of most international travelers. As several large-scale resorts begin the permit process, and with increasing air service from Asian rim countries, and a new multi-faceted marketing strategy in the planning phase, Palau seems destined to be the next "soon-to-be-discovered" visitor mecca in the Pacific by travelers seeking scenic vistas, deserted beaches, exotic tropical islands, excellent seafood, a laid-back lifestyle, and the best diving in the world.  

Overview of Palau's Current Tourism Market  

Palau has been known as an outstanding dive location since the 1970's. In 1989, the Conservation Education Diving Archeological Museum (CEDAM) in the United States designated Palau's reefs and underwater scenery to be the best of seven sites identified as the Seven Underwater Wonders of the World, as has the Smithsonian Institute (Orteb and Maiau, 1994). Due in part to this unique recognition, the Republic's visitor industry has been experiencing steady growth since 1989 when over 26,500 visitors arrived in the country. With an approximate 15% growth rate for the past five years, visitor figures topped over 53,000 in 1995, with 65% of those visitors traveling to Palau to dive. In 1995, tourism generated approximately $20 million in local revenues. The Palau Visitors Authority (PVA) anticipates visitor arrivals to double to over 100,000 in the next four years (PVA, 1996).  

The maintenance of Palau's tourism industry is largely dependent on Palau remaining a popular and significant diving destination. Recent reports affirm that Palau has ample natural and cultural assets with high visitor appeal to expand its tourism base from solely diving and into other nature-based tourism markets (PATA, 1993; Bell, 1994; Wylie, 1994) such as forest-based tourism, river running, tours of prehistoric and historic sites and kayaking.  

In response to these findings, the PVA is working to develop a broader international image by recognizing and promoting a variety of alternative tourism activities such tour kayaking (King, 1996).  

The Appeal of Rock Island Kayaking  

International kayaking experts are just now discovering what local kayakers have been saying for years, that Palau is a world class location for warm water, ocean tour kayaking. Visitors are realizing that kayaking in Palau is a much more multi-faceted sport than diving. Even beginning kayakers can easily glide through Palau's calm, blue lagoons and bird watch, view sea turtles and sunken sea planes, explore secluded sea caves, land on palm-shaded beaches, or snorkel the best coral reefs in the world. For the more adventurous, Palau's river kayaking offers opportunities to paddle up to sun-dappled waterfalls, or, in the mangrove...
channels, spot an endangered crocodile. For visitors who only have time in the evening, sunset paddling offers memorable moments such as listening for the twilight return of the Audubon shearwaters with their eerie cries, or watching flying fruit bats, that are frequently considered one of the highlights of their visit to the island. Night kayaking offers cooler temperatures and a unique occasion to observe swirls of golden-blue bioluminescence, silhouettes of the famous Rock Islands, and the chance to star gaze from quietly dripping sea caves. Nowhere else in the world can kayakers encounter such a diversity of fun and unique experiences with such easy access from a country’s capital city. Kayaking appeals to families, as well as couples and solo paddlers, who are drawn to the activity by the sense of adventure, the peace and quiet, and Palau’s phenomenal natural beauty.

Safety is another reason why visitors are willing to give kayaking a try in Palau as the waters inside the huge lagoon are warm and calm, so hypothermia and the fear of tipping over is minimized. The brightly colored sit-on-top kayaks themselves are completely user friendly and people adapt to them easily. Beginners like being close to the Rock Islands, and the fact that the water is clear and they can see the reef underneath them. All of this allows people to relax and enjoy their first kayaking experiencing.

History of Kayaking in Palau

The first kayaks were brought to Palau in the late 1980s. At that time, the kayaks were the sit-in kind, for the personal use of four or five local kayakers, all U.S. expatriates. The activity was not actively promoted in the country until 1993, when the University of Hawaii Sea Grant Program established an extension agent position in Palau, whose mandate, in part, was to identify and develop sustainable ecotourism projects. The potential for sea kayaking as an alternative tourism activity had been mentioned in recent report drafts (Bell, 1994, Wyle, 1994). The extension agent laid groundwork for the kayaking industry by bringing in two of the first plastic sit-on-top kayaks and identifying sites with high visitor appeal, designing tour routes, giving many community members their first kayaking experience, and assisting the first kayak companies.

In April 1995, the first kayak business, Adventure Kayaking of Palau, Inc. opened with a fleet of five two-person kayaks and a single seater. In 1996, a second kayak company, Palau Kayak Tours, opened for business with six doubles and two single seaters. In addition, one of the dive shops began renting kayaks from one of the already established companies to give their own occasional specialty paddle tours.

In late 1995, the Palau Pacific Resort, a five-star resort owned by Pan Pacific, purchased three Ocean kayaks for their guests to paddle, and several more expatriates brought in sit-on-top kayaks and used them regularly.

Palau held its first triathlon during April 1996 in honor of Earth Day. The three day event, in which participants walked, bicycled and kayaked down the length of Babaldaob, a 27-mile long island, was filmed and shown on the local TV station. Kayaking is now a well recognized recreational activity enjoyed by Palauans, expatriates, and visitors.

Struggling Though the First Year

Though Palau offers an exotic and unique nature experience for both beginning and experienced kayakers, kayak companies are finding it a challenge to reach potential customers. The first year of commercial kayaking from May 1995–April 1996 only grossed roughly $32,000 with approximately 600 customers. These first year statistics are not indicative of the bright future for kayaking in Palau. Both kayak companies experienced serious start-up problems during their first months of operations. In addition, the atypical November 1995 through April 1996 weather pattern consisted of weeks of cloudy and rainy weather interspersed with occasional days of sunshine, substantially diminishing customer interest in additional outside activities.

Heightening general awareness about kayaking to prospective customers is essential since not only is kayaking a new sport in Palau, but generally throughout Micronesia. Travel writers, after a day of paddling, are eager to write about their new adventures. *Action Asia, Sea Kayaker, and Pacifica*, the inflight magazine of Continental Airlines, will all soon feature articles on kayaking in Palau.

Currently, kayak companies are targeting divers already in the country, all of whom are recommended to take a day off from diving before they fly home to avoid decompression sickness. The companies are conducting regular slide presentations at major hotels and resorts, offering free kayak classes and demonstrations, placing signs at busy intersections, and distributing brochures.

They are also diligently educating tour packagers and wholesalers that Palau has something new and dynamic to offer visitors. Breaking specifically into the Asian tour package market will be an important step. In an exit survey conducted by the PVA between July 1994–June 1995, 68% of visitors to Palau came on package tours. The other 31% consisted of mainly Americans who traveled to Palau on their own with the remaining one per cent combing solo travel with a package (PVA, 1996).
Palau's Kayak Customer

Palau kayaking tours are designed to meet the needs of two types of customers: American and Asian. Considering that Americans do not typically travel on package tours, and can make vacation choices whilst on-island, it is easy to understand why this group comprises over 90% of the kayaking customers. Since shopping and restaurant opportunities are limited on-island, these travelers tend to schedule an activity that will take the entire day, so full day tours are preferred.

The few Asian travelers who can get away from their tour package, or, are traveling on their own, are first-time kayakers and prefer a two or three hour kayak experience. They frequently take roles of photographs and appear to appreciate the opportunity to talk among themselves as well as view Palau's stunning environment in a new way. When the tour is finished, Asian customers comment on how tired they are, but frequently stop by the next day to remark on how good they feel and how surprised they are not to have any sore muscles.

For safety reasons, both kayak companies rent kayaks only to residents of Palau. Though, a large percentage of their customers are locals and expatriates, rental fees are low; therefore, a proportionately small percentage of income for both companies.

The Need for Regulation and Management of Tour Sites

Kayakers are discovering and actively promoting an entirely new spectrum of previously unknown, overlooked, or rarely used land, coastal and snorkeling sites with high visitor appeal. Previously, commercial visits to such areas were regulated by access problems, awareness of the site and the ability to find its actual location. As information about these sites gradually becomes general knowledge, there is a growing concern about minimizing visitor impacts, maintaining the quality of the visitor experience and enhancing safety at these areas.

Take the following example. Kayak companies offer occasional visits to a certain secluded, marine lake containing thousands of stingless jellyfish, named Jellyfish Lake Koror. Kayakers tie up their boats in a shallow bay and proceed to hike a moderately strenuous 20 minutes to the marine lake. The lake edge is rimmed with overhanging jungle trees, and no one else is in the lake. The guide discusses the biology and of the lake and proper lake etiquette as the tour group listens attentively, then the group quietly ventures into the lake to experience the sensation of floating with thousands of harmless jellyfish. However, imagine how different the experience would be if the group had met several other tour groups talking loudly along the trail, one throwing a plastic water bottle deep into the jungle, then coming to the lake edge to see 40 snorkelers already in the lake, two of them throwing jellyfish at each other.

To date, only a small number of tours have been to Jellyfish Lake Koror. However, as Palau's tourism increases, so will the number of tours and tour companies. As other marine-related tour businesses realize there are closer locations with similar visitor appeal, nearby sites, such as Jellyfish Lake Koror, will become more frequently and heavily used. Although many tour sites can stand heavy visitor traffic, the quality of some sites would be irreparably diminished by the actions of a dozen unknowing people.

As Palau moves to diversify its tourism base away from diving and into a variety of other low impact sustainable activities including kayaking, general tourism guidelines and regulations as well as specific tour guide education requirements need to be developed and adopted in the very near future. Recommendations concerning the carrying capacity of certain visitor sites, as well as decisions concerning the quality of a visitor's experience while at these sites, need to be addressed before detrimental impacts occur to these beautiful and often fragile areas.

Conclusion

The kayaking industry in Palau, after a difficult beginning, continues to establish itself as a "must do" activity in Palau. The Palau kayaking experience sells itself, with many visitors exclaiming that if they had had more time, they would like to have paddled more. The first year start-up problems of both companies have been, by and large, solved. Promotion of Palau as one of the best kayaking locations in the world is being set in place by the PVA, and international experts are just beginning to discover that Palau really is a warm water tour kayakers paradise. As tour packagers and independent travelers discover kayaking as an additional reason to vacation in Palau, especially those visitors who live within Micronesia, Palau's reputation as one of the best kayaking areas in the world will be increasingly recognized.

In order maintain the integrity, conservation and quality of the visitor experience at all tour sites, an overall tourism plan needs to be developed and implemented.

References


