

# Tourism Research: A 20-20 Vision



**Edited by**

**Douglas G. Pearce and Richard W. Butler**

## **Carrying capacity in tourism: paradox and hypocrisy?**

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# 5 Carrying capacity in tourism: paradox and hypocrisy?

Richard W. Butler

## Introduction

Carrying capacity is a well established concept in tourism and recreation, as in many other elements of society. One might have expected, with the growth of sustainable development and the inextricable links of that concept to limits, and, by implication, the capacity of resources, that carrying capacity of tourist resources would be of increasing importance in current research and literature. In fact, somewhat the opposite is the case. In previous decades carrying capacity was a major focus in tourism and recreation research (Burton and Jackson, 1989) and a bibliography of over 3000 references on this topic (Vaske, 1992) was published. The topic is still mentioned, almost without exception, in major text books on tourism and merits specific attention in several others (e.g. Jenkins and Pigram, 2003; McCool, 2003). The concept is one of the basic foundations of the Tourism Area Life Cycle Model (Butler, 1980), the most widely used and cited model in tourism for the past three decades, and the term is found in many reports and policies relating to tourism planning and development. With this considerable pedigree, it is puzzling to note that in the 21st century this concept has virtually disappeared from the tourism research literature and is barely mentioned in the recreation resource management literature, where it was once a mainstream concept. At a meeting of the International Academy for the Study of Tourism in 1995 this author (Butler, 1997: 13) noted an earlier decline in research on this topic and argued that this trend would

*serve destination areas poorly in the long run, especially those areas which are most dependent upon natural characteristics for their attractiveness and appeal, [and]... has left destination areas potentially exposed to overuse.... inevitable radical change and possibly ultimate despoliation.*

Given that over the intervening decade and a half since those words were written tourist numbers have continued to rise both globally and in almost every region of the world (WTO, 2008), visitor pressure on resources and destinations has increased rather than remained stable or decreased. This has meant that because destinations are experiencing increasing numbers of visitors they are witnessing ever more severe impacts upon the destination environments, both ecological and

human. At a time when most tourism destination countries have 'signed up' to the principles of sustainable development, and by implication, sustainable tourism, this represents both a great paradox and considerable hypocrisy.

Carrying capacity is not alone in being an area of research in tourism which has experienced a rise and fall in interest and involvement. Similar traits can be seen in the research literature on approaches to visitor management, which peaked in the 1980s (see for example, Stankey *et al.*, 1985), and has similarly declined in interest since then, as has research on resort morphology and concepts such as the Recreation Business District (Stansfield and Rikert, 1970), which also are no longer discussed in the tourism journals. Whether these patterns are the result of changing academic 'fashions', maturation of the topic, or perceived irrelevancy of the subject is open to interpretation and returned to later in the discussion. This chapter continues with a brief review of the concept of carrying capacity and discusses its initial application in recreation and tourism. It then considers the reasons why the concept has declined as a focus of research interest and the implications of this decline. The chapter concludes with a short discussion on what that might involve for tourism in the future.

## Carrying capacity: definition and origins

Carrying capacity is inextricably linked to limits, normally limits on resource exploitation, which may take a variety of forms, including numbers, volumes, interactions relating to negative impacts. The concept is age-old, as noted in an anonymous poem from the sixteenth century:

*But now the sport is marred,  
And wot ye why?  
Fishes decrease,  
For fishers multiply.*

(Anon, 1598)

While today that lament may apply with more force to commercial than recreational fish stocks, it reflects well the basic premise of the concept, namely, that overuse (over extraction, over pollution) of a resource beyond its natural ability to recover will result in diminishing returns and perhaps ultimately the disappearance of that resource. Most of the best examples of use at levels beyond the carrying capacity of the resource relate to wildlife consumption, including the extinction of the dodo, the carrier pigeon and almost the North American bison, all resources thought to be inexhaustible and hunted beyond their natural recovery levels. Ignorance over the level and quantity of resources can explain those examples, but other forces also affect the level of use.

Perhaps the most significant of these is the placing of individual benefit ahead of the well being of the community to which the individual belongs. This behaviour has been well described by Hardin (1968) in his now classic paper 'The tragedy of

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