

## **TOURISM AND RECREATION CLIMATOLOGY**

Andreas Matzarakis<sup>1</sup>, C. R. de Freitas<sup>2</sup>, Daniel Scott<sup>3</sup>

<sup>1</sup>Meteorological Institute, University of Freiburg, 79085 Freiburg, Germany

<sup>2</sup>School of Geography and Environmental Science, University of Auckland, PB 92019, Auckland, New Zealand.

<sup>3</sup>Department of Geography, University of Waterloo, 200 University Avenue West, Waterloo, Ontario, Canada, N2L 3G1

Email Addresses:

andreas.matzarakis@meteo.uni-freiburg.de (Andreas Matzarakis);

c.defreitas@auckland.ac.nz (C R de Freitas);

dj2scott@fes.uwaterloo.ca (Daniel Scott).

### **THE ISB COMMISSION ON CLIMATE, TOURISM AND RECREATION**

This publication grew out of the Second International Workshop of the International Society of Biometeorology, Commission on Climate Tourism and Recreation (ISB-CCTR) that took place at the Orthodox Academy of Crete in Kolimbari, Greece, 8-11 June 2004. The aim of the meeting was to a) bring together a selection of researchers and tourism experts to review the current state of knowledge of tourism and recreation climatology and b) explore possibilities for future research and the role of the ISB-CCTR in this.

A total of 40 delegates attended the June 2004 ISB-CCTR Workshop. Their fields of expertise included biometeorology, bioclimatology, thermal comfort and heat balance modelling, tourism marketing and planning, urban and landscape planning, architecture, climate change, emission reduction and climate change impact assessment. Participants came from universities and research institutions in Australia, Austria, Canada, Croatia, France, Germany, Greece, Hungary, Italy, the Netherlands, New Zealand, Portugal, Slovenia, United Kingdom and United States of America.

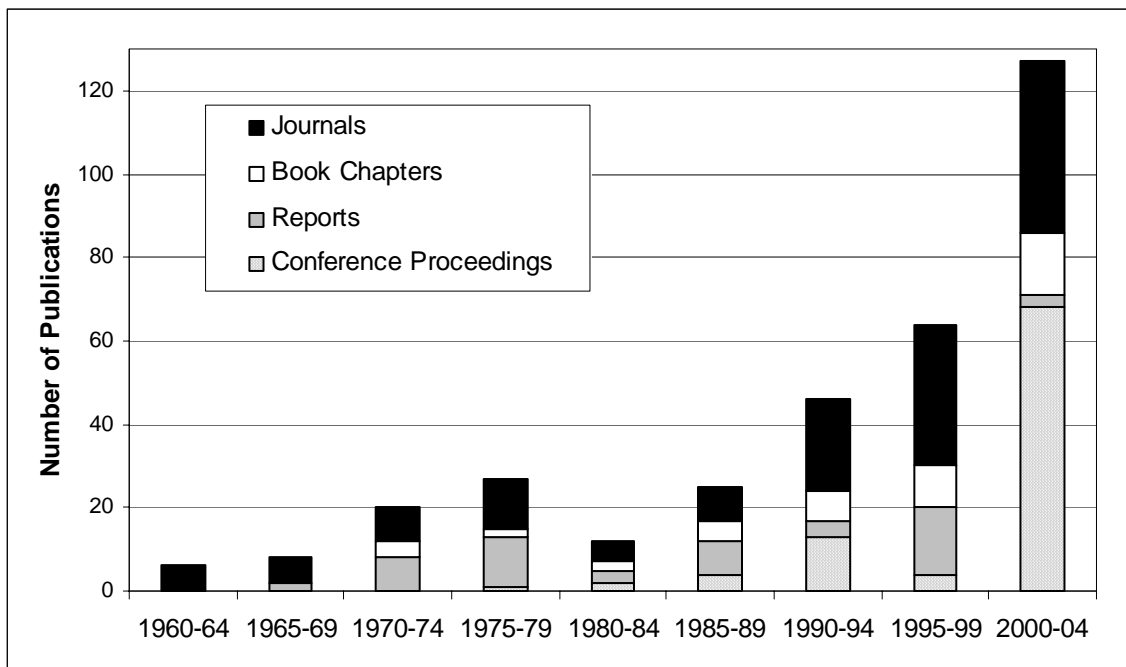
Business conducted at the Workshop was divided between five sessions: assessment of climatic resources; climate change; health; weather, sports and risk forecasts; and behaviour and perception. However, the content of this publication is organised so that it reflects the new perspectives and methods that have evolved since the ISB-CCTR was established. This is the reason for using "Advances" in the title. In order for all this to be achieved in one volume, the individual research articles were limited in most cases to 8 pages. Only those articles that were recommended for publication by three reviewers were included.

## THE GROWTH OF TOURISM CLIMATOLOGY

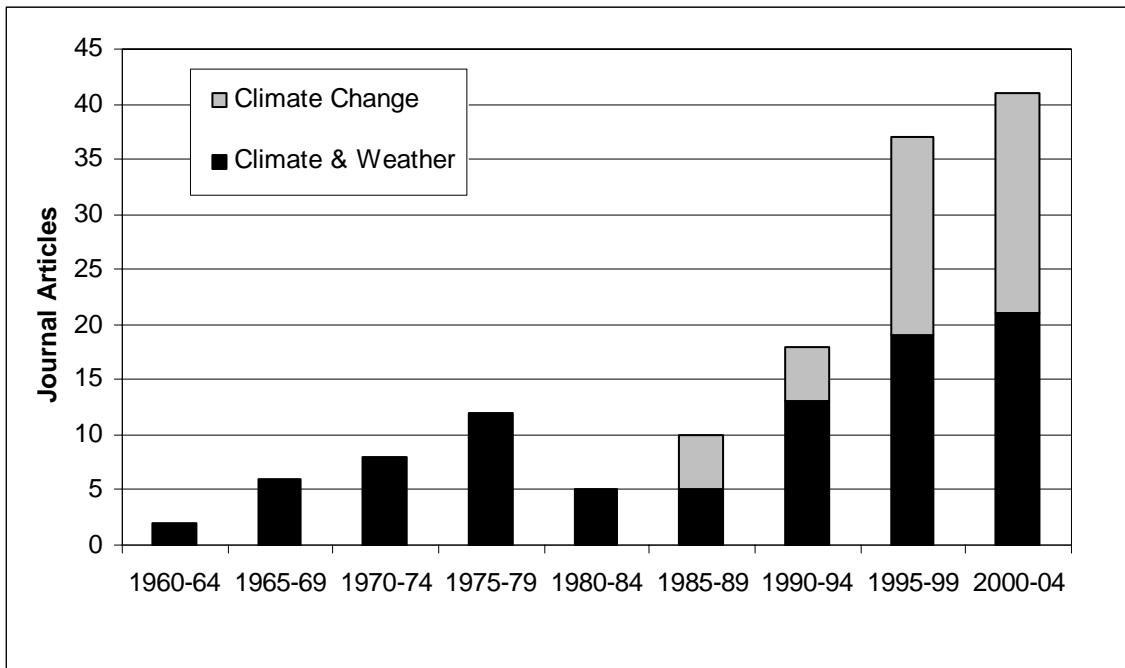
An inspiration for the activities of the CCTR was the recent rapid growth and diversification of the research activity in the field of tourism and recreation climatology. Scott et al. (page 237-258 of this volume) have compiled a comprehensive bibliography for this field, containing over 330 publications (current to December 2004). Figures 1 and 2 are based on this comprehensive bibliography and put this recent rapid growth into the context of the historical development of the field.

### The first phase

The field of tourism and recreation climatology has a 30 year history. The earliest tourism and recreation climatology research began in what Lamb (1) called the ‘climate revolution’ during the 1960s and 1970s. Government investment in the expansion of climate station networks and climate research provided applied climatologists the opportunity to exam how climate affected a wide range of economic sectors, including the rapidly growing tourism and recreation industry. As de Freitas (2:p89) noted, “much of the [early] research in recreation climatology appears to be motivated by the potential usefulness of climatological information within planning processes for tourism and recreation.”



**Figure 1: Number of Publications on Climate-Weather and Tourism-Recreation**



**Figure 2: Journal Articles on Climate-Weather and Tourism-Recreation**

### **The second phase**

The initial development phase peaked in the late 1970s and was followed by a notable decline in research activity. As Figure 1 indicates, publication of research in this field almost stopped during the early 1980s and did not regain the level of activity of the late 1970s until the early 1990s. A possible explanation for the lack of continued development in the 1980s was that climate scientists, who were almost exclusively responsible for the early research in this field, were deflected into new, salient and better funded atmospheric science issues, such as acid rain, ozone depletion, and air pollution.

### **The third phase**

A new phase of growth began in the early 1990s and has continued through to the present. The volume of journal articles related to climate and tourism-recreation increased three-fold between 1990-94 and 1995-99 (Figure 2). Recognising the need for an organization to help the growing number of researchers with interests in tourism and recreation climatology share their ideas, the ISB Commission on Climate, Tourism and Recreation was established early in this growth phase, at the 14th Congress of the International Society of Biometeorology, held in September 1996 in Ljubljana, Slovenia.

## **CURRENT TRENDS AND THE WAY AHEAD**

The onset of the third phase and the rapid growth in the tourism and recreation climatology coincided with emerging interest in the potential implications of global climate change for national economies and societies worldwide. Much of the earliest empirical studies on climate change and tourism-recreation borrowed on the methods and findings of the pioneering work in the field of tourism and recreation climatology. Figure 1 demonstrates that the proportion of journal papers in the field of tourism and recreation climatology that have focused on climate change has increased over the past 10 years.

A second important trend not apparent in Figures 1 and 2, but that is clearly evident in the bibliography (pages 237-257), is the diversification of research questions and methodologies in the field over the past decade. As this volume clearly demonstrates, the field of tourism and recreation climatology has become truly multidisciplinary, with researchers from a number of disciplines bringing fresh perspectives and new methods to the task of advancing the field of tourism and recreation climatology. Many of the new perspectives and methods are being employed by young, emerging scholars. These are tremendous strengths that portend a very positive future for the field. It is a truly exciting time in the field of tourism and recreation climatology, and as the title suggests, the purpose of this volume is to showcase the diversity of on-going research in this rapidly advancing field of inquiry and provide a benchmark to which research in this field 20 years hence can be compared.

## **REFERENCES**

1. Lamb, P. 2002 The climate revolution: a perspective. Clim. Change 54: 1-9.
2. De Freitas, C.R. 1990. Recreation climate assessment. Int. J. Climatol. 10:89-103.