

## Wetland Tourism: A Bibliometric Analysis (1985-2022)

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### ABSTRACT

The peculiarity of wetlands tourism has become an important component of the worldwide tourism industry. This study aims to conduct a bibliometric analysis of wetland tourism from 1985 to 2022. To accomplish this goal, the search terms "Wetland" AND "Ecotourism" OR "Tourism" were entered into the "Scopus" database, and bibliometric information about the publications was gathered. During the initial search using the "Scopus" database, 1162 papers were found. After applying different filters 533 articles to conduct bibliometric analysis. The authors used performance analysis and science mapping methods along with data visualisation software, i.e. VOS viewer and RStudio (Biblioshiny). The results included citations analysis, most frequently cited papers, the most productive authors, countries, year-wise publications, co-occurrence of authors' keywords and co-citation analysis, word cloud. The study enhanced wetland tourism by identifying the most influential authors, top journals, top keywords, themes, and future research directions. The findings revealed three papers with more than 350 "Scopus" citations. The paper by Lee, TH received 51.18 citations per year and China made the most contribution in terms of articles on wetland tourism according to "Scopus" database. This study helps to understand current trends and suggest new directions in the field of wetland tourism.

**Keywords:** Wetland tourism, Ecotourism, Bibliometric review, Biblioshiny, VOS viewer

### Introduction

In the context of developing economies, tourism is seen as a doorway to the local communities' economic development (Ko & Stewart, 2002). The creation of sustainable wetland tourism to meet the demands of these visitors could significantly enhance the long-term viability of these natural environments (Galley & Clifton, 2004). Ecotourism benefits the economy and the environmental (Ross & Wall, 1999). Wetland tourism is another form of nature-based tourism that provides a range of tourist pursuits like adventure, relaxation, and entertainment (Kerstetter et al., 2004; Lee, 2009a, 2011; Chiu et al., 2014). Although there is a lot of tourism in wetlands, the Ramsar Convention has never given it any thought. However, the 11th CoP to Ramsar (Bucharest, Romania) focused on Wetlands, Tourism, and Recreation in July 2012. The Convention publicly acknowledges tourism for the first time as one of the many "ecosystem services" that wetlands provide (UNWTO, 2012).

Numerous wetlands are among the popular tourist destinations. While some of the best wetlands have been recognised as World Heritage Sites, National Parks, and even Wetlands of International Importance (Ramsar sites), not all wetlands are protected, unlike most coastal zones (Henkens, 2007). Wetland tourism distinctiveness has grown to be a significant element of the global tourism market, especially in developing nations (Khoshkam et al., 2014). To ensure the proper and sustainable use of wetlands, the Chinese government promotes wetland ecotourism development and uses it as a tool to build an ecological society (Wang & Lu, 2009).

Regarding this, very few studies have used the bibliometrics approach to assess articles on wetland tourism. An investigation of bibliometrics in wetland tourism is essential for multiple reasons. First, it aids in identifying patterns and distribution of current literature on the subject, providing insights into developing research themes and the most influential articles. Furthermore, this

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analysis uncovers areas of research that have not been adequately explored and guides future research endeavours. It also evaluates the authors and institutions that have been the most successful in this subject. Our goal is to significantly contribute to wetland tourism by identifying the most influential authors, leading journals, key keywords, prevailing themes, and directions for future research. For this study, the five research questions listed below have been prepared:

1. What is the citation analysis of wetland tourism between 1985 and 2022?
2. Which studies on wetland tourism are most frequently cited?
3. Who are the most productive authors, sources of publications, organizations, and nations?
4. What are the most frequently used keywords and Word Cloud in wetland tourism?
5. What is the co-occurrence and, co-citation analysis of authors' keywords?

## **Literature Review**

### ***Wetland***

The world has three distinct ecosystems: wetlands, forests, and the ocean (Cong et al., 2020). They are also referred to as "the Earth's Kidney" (Bullock & Acreman, 2003) and the Earth's most productive ecosystems (Ghermandi et al., 2011). It is also regarded as a distinctive ecological unit that significantly benefits human society (Prasad et al., 2002). A bibliometric analysis of the wetland studies was also conducted by L. Zhang et al., (2010) to provide a prospective direction in the field of ecology and water quality. Biswas Roy et al. (2022) conducted a thorough bibliometric investigation of Ramsar sites in India, employing both quantitative and qualitative methodologies.

### ***Wetland Tourism***

Numerous academics concur that ecotourism that emphasises wetlands is essential for preserving wetlands' ecological systems and the socioeconomic well-being of residents (Christopoulou, Olga; Tsachalidis, 2004; Wang et al., 2012). Wetland tourism is a category of tourism that relies on a relatively untouched natural setting and helps maintain and conserve the wetland environment (Ceballos-Lascuráin, 1996; Lee, 2009a). To allow visitors to enjoy the outdoors responsibly without harming the ecosystem, wetlands tourism offers small-scale and village-style accommodations. Wetland tourist locations generate direct income for the locals and the area, which is crucial for local support of environmental preservation (Lee & Hsieh, 2016). People in north India's Ladakh region made between \$700 and \$1200 per year during the summer, according to research on the Ramsar-listed Tsomoriri wetland (Anand et al., 2012). In this era of climate change and urbanisation, conservation tactics include the administration and protection of places, the carrying out of scientific research, the creation of funding possibilities, and the promotion of ecotourism (Gardner et al., 2009). To help reduce poverty in the Pong Wetland in Himachal Pradesh, (Bhatia, 2022) researched ornithological tourism as a sustainable and responsible form of travel. Additionally, it gave locals a tremendous chance to find work, and numerous stakeholders—including NGOs and locals play a crucial role in promoting the region as a tourist destination.

### ***Bibliometric Analysis in Tourism***

The tourism literature has made extensive use of bibliometric analysis to assess publications and authors (Hall, 2011). Previous studies have shown that various authors work on bibliometric analysis using the Scopus and Web of Science databases (Magadán-Díaz & Rivas-García, 2022). A bibliometric study on tourism by Koseoglu et al., (2016), and a bibliometric analysis of various tourism subfields such as Wellness tourism (Suban, 2022), Halal tourism (Suban et al., 2021), Food tourism (Naruetharadhol & Gebombut, 2020), Medical tourism (Habibi et al., 2022), Sustainable tourism (Della Corte et al., 2019), and a review of state tourism policy (Virani et al., 2019) have been conducted. Additionally, bibliometric studies have been used in tourism journals by researchers such as (Singh et al., 2023), (Kumar et al., 2020), (Singh et al., 2022), (Sharma et al., 2021), and (Vishwakarma & Mukherjee, 2019). In the tourism field, bibliometric analysis is used for current trends in different areas, productive authors, most search keywords, citations, etc (de Bruyn et al., 2023; Suban, 2022).

## **Methodology**

### ***Bibliometric Analysis***

The term "bibliometric analysis" refers to analysing literature using quantitative and statistical methods to examine documents from journals and the citations that correspond to them (Estevao et al., 2017). Bibliometric analysis was used to investigate

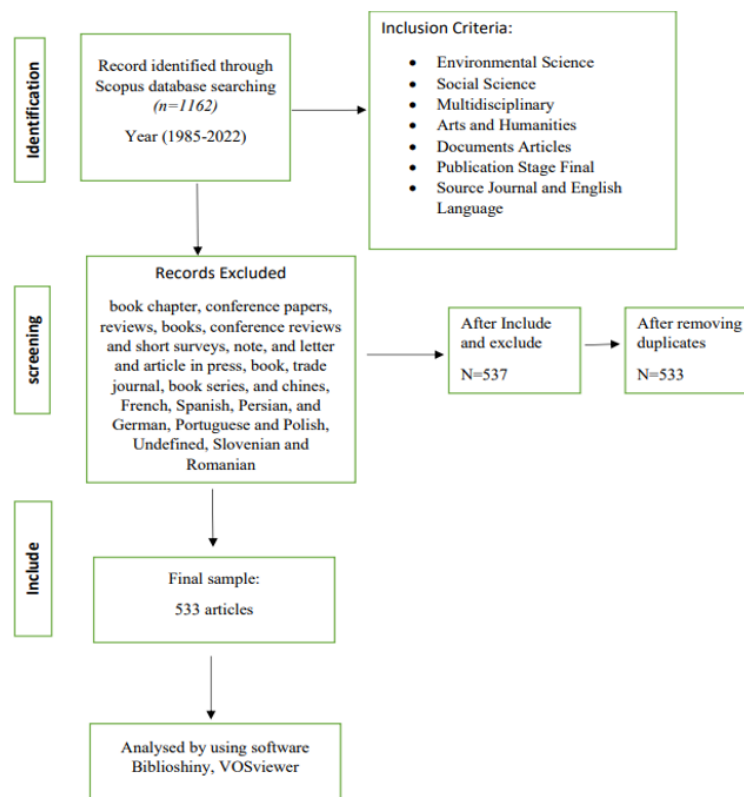
the bibliographic data, including the total number of researchers and documents, citations, affiliations, and countries (Suban et al., 2021). Bibliometric approaches have been used for years to map and investigate the material released in many domains (Danvila-del-Valle et al., 2019). Performance analysis (Descriptive) and scientific mapping (Network Analysis) are two categories of bibliometric techniques that scholars have identified (Cobo et al., 2011). In the present study, the authors employed bibliometric analysis to cover wetland tourism from a performance analysis (descriptive) and science mapping (network analysis) (Cobo et al., 2011; Donthu et al., 2021). The authors have also utilised the two software packages VOS Viewer and RStudio. The VOS viewer is a tool used for visual analysis to examine the co-occurrence of author keywords and the co-citation of sources and citations (Donthu et al., 2021; Nusair et al., 2019; Suban et al., 2021) and (Chen and Song, 2017). Visual analysis software called VOS Viewer is a programme that is frequently used for data network visualisation (Van & Waltman, 2017). R studio software (Biblioshiny) is also used to examine the annual scientific production, top authors, frequently used words, and top journals, countries, etc. (Aria & Cuccurullo, 2017).

### Keywords search

The initial search was conducted using the following Boolean string to locate articles that had the phrase "wetland tourism" in either the title or the keywords: "Wetland" AND "Ecotourism" OR "Tourism" in the Scopus database.

### Initial Search Results

On August 30<sup>th</sup>, 2023, the "Scopus" database for bibliometric information on wetland tourism was searched. Only papers published between 1985 and 2022 were considered because the first paper was published on wetland tourism in the year 1985, after which a continuous growth was observed in this particular domain. In the first search, the "Scopus" database produced 1162 documents. The largest, most organised, and, most structured database is called Scopus, and quantitative studies frequently use it (Donthu et al., 2021; Johnson & Samakovlis, 2019; Niñerola et al., 2019; Santos et al., 2020) and (Sharma et al., 2021). Figure 1 displays the PRISMA framework used in the article selection process.



Source: Authors' compilation

Figure 1. PRISMA Diagram

### ***Included and excluded***

The dataset consisted of 537 articles that covered various subject areas such as environmental science, social sciences, multi-disciplinary studies, arts and humanities, and documents. The articles were in their final publication stage and were sourced from journals written in the English language. The dataset excluded 81 book chapters, 74 conference papers, 43 reviews, 12 books, 10 conference reviews, 3 short surveys, 1 note, and 1 letter. Additionally, it excluded 1 article in press, 11 books, 3 trade journals, 3 book series, and articles written in Chinese (95), French (12), Spanish (11), Persian (6), German (3), Portuguese and Polish (2) languages. The dataset also included 1 article with an undefined language and articles written in Slovenian and Romanian (1 each). After eliminating duplicate and irrelevant documents, there are 533 remaining for study during 1985 to December 31, 2022.

**Table 1.** *Summary of the Main Information of Data Extracted from Rstudio (Biblioshiny)*

MAIN INFORMATION	
Timespan	1985- 2022
Sources (Journals)	263
Documents	533
Annual Growth Rate %	11.27
Document Average Age	9.2
Average citation per document	20.99
International co-authorships %	24.2
Authors Keywords	1788
Articles	533

Table 1 shows 533 articles from 263 sources (Journals), with an annual growth rate of 11.27%. The worldwide collaboration with authors is 24.2%, there are 20.99 average citations per article, and there are 1788 authors' keywords.

### **Results and Interpretation**

**Performance Analysis:** This method evaluates the effectiveness or total contribution of several study components (Baker et al., 2021).

#### ***Citation Analysis:***

Table 2 shows the citation analysis of wetland tourism. Three papers have more than 350 Scopus citations (Lee, 2009, 2013; Lique et al., 2013), accounting for (0.63%) of the article percentage. Three other publications on wetland tourism have more than 250 citations and account for (0.64%) of the article percentage. The articles number one hundred thirty-six, seventy-one, etc., show more than 50, 25, 20, 10, 5, and fewer than 5 Scopus citations. The 12 articles show more than 100 Scopus citations. Twenty-nine articles show more than 71 citations.

**Table 2.** *Citation Analysis between 1985- 2022*

NO. OF CITATIONS	NO. OF ARTICLES	PERCENTAGE OF ARTICLES
≥350	3	0.63
≥250	3	0.64
≥100	12	2.53
≥50	29	6.11
≥25	71	14.97
≥20	30	6.32
≥10	105	22.16
≥5	85	17.94
<5	136	28.70
TOTAL	474	100

Source: Authors' Compilation

**Table 3.** *Top 15 cited articles on Wetland Tourism*

Authors	Title	Sources	Total citations	Citations per year
Lee, T. H. (2013)	“Influence analysis of community resident support for sustainable tourism development”	Tourism Management	563	51.18
Liquete, C., Piroddi, C., Drakou, E. G., Gurney, L., Katsanevakis, S., Charef, A., and Egoh, B. (2013)	“Current status and future prospects for the assessment of marine and coastal ecosystem services: a systematic review”	PLoS ONE	405	36.82
Lee, T. H. (2009)	“A Structural Model to Examine How Destination Image, Attitude, and Motivation Affect the Future Behavior of Tourists”	Leisure Sciences: An Interdisciplinary Journal	363	24.20
Aburto-Oropeza, O., Ezcurra, E., Danemann, G., Valdez, V., Murray, J., and Sala, E. (2008)	“Mangroves in the Gulf of California increase fishery yields”	Proceedings of the National Academy of Sciences	331	20.69
Lepp, A. (2007)	“Residents’ attitudes towards tourism in Bigodi village, Uganda”	Tourism Management	288	16.94
Lee, T. H. (2011)	“How recreation involvement, place attachment and conservation commitment affect environmentally responsible behavior”	Journal of Sustainable Tourism	268	20.62
Wang, Z., Zhang, B., Zhang, S., Li, X., Liu, D., Song, K., ... and Duan, H. (2006)	“Changes of Land Use and of Ecosystem Services Values in Sanjiang Plain, Northeast China”	Environmental Monitoring and Assessment	178	9.84
Najjar, R. G., Walker, H. A., Anderson, P. J., Barron, E. J., Bord, R. J., Gibson, J. R., Swanson, R. S. (2000)	“The potential impacts of climate change on the mid-Atlantic coastal region”	Climate Research	166	6.92
Lee, T. H., and Hsieh, H. P. (2016)	“Indicators of sustainable tourism: A case study from a Taiwan’s wetland”	Ecological Indicators	146	18.25
Malekmohammadi, B., and Jahanishakib, F. (2017)	“Vulnerability assessment of wetland landscape ecosystem services using driver-pressure-state-impact-response (DPSIR) model”	Ecological Indicators	144	20.57
Harrison, P. A., Vandewalle, M., Sykes, M. T., Berry, P. M., Bugter, R., De Bello, F., Zobel, M. (2010)	“Identifying and prioritising services in European terrestrial and freshwater ecosystems”	Biodiversity Conservation	137	9.79
Kerstetter, D. L., Hou, J. S., and Lin, C. H. (2004)	“Profiling Taiwanese ecotourists using a behavioral approach”	Tourism Management	135	6.75
Trakolis, D. (2001)	“Local people’s perceptions of planning and management issues in Prespes Lakes National Park, Greece”	Journal of Environmental Management	132	5.74
Zhang, H., and Lei, S. L. (2012)	“A structural model of residents’ intention to participate in ecotourism: The case of a wetland community”	Tourism Management	126	10.50
Aksoy, A., Demirezen, D., and Duman, F. (2005)	“Bioaccumulation, Detection and Analyses of Heavy Metal Pollution in Sultan Marsh and Its Environment”	Water, Air, and Soil Pollution	111	5.84

*TC-Total Citations, TCPY-Total Citations Per Year Source: Authors’ Compilation*

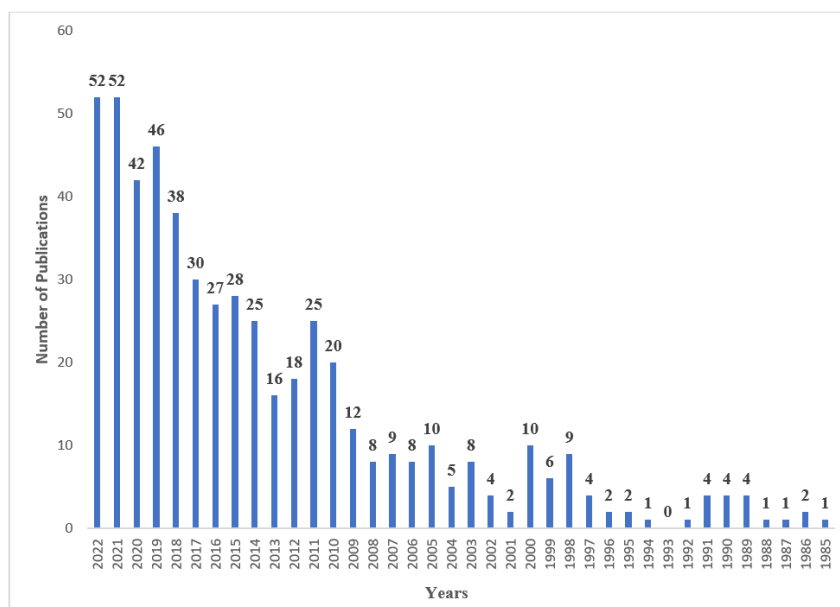
According to the Scopus database, Table 3 lists the top 15 papers cited in wetland tourism. One work by (Lee, 2013) has 563 citations, a second article by (Liquete et al., 2013) has 405 Scopus citations, four publications have more than 200 citations, and nine articles have more than 100 Scopus citations. The overall results demonstrate that the articles (Lee, 2013) and (Liquete et al., 2013) are more frequently cited in the area of wetland tourism.

**Table 4.** *The Top 10 authors in terms of citation on Wetland Tourism*

Sr. No.	authors	total no. of publications	total citations	h-Index	g-index	countries
1	LEE TH	6	1381	6	6	Taiwan
2	CHAREF A	1	405	1	1	Italy
3	DRAKOU EG	1	405	1	1	Greece
4	EGOH B	1	405	1	1	United States
5	GURNEY L	1	405	1	1	Canada
6	KATSANEVAKIS S	1	405	1	1	Greece
7	LIQUETE C	1	405	1	1	Belgium
8	PIRODDI C	1	405	1	1	Belgium
9	DANEMANN G	1	331	1	1	Mexico
10	EZCURRA E	1	331	1	1	United States

TC-Total Citation, h-index, g-index Source: Authors' Compilation

According to the Scopus database, Table 4 shows the top 10 authors in terms of total citations, total number of publications, h-index, g-index, and nations. According to the table, Lee TH in terms of total citations has a top author with (1381) and CHAREF A, DRAKOU EG, EGOH B, GURNEY L, and KATSANEVAKIS S, LIQUETE C, PIRODDI C (405). Two authors with total citations 331 DANEMANN G, EZCURRA E. In this table is also available is the h-index, a measure of an author's contribution to scientific research based on comparisons of papers and citations (Lu & Nepal, 2009). LEE TH has the highest h-index (6) and g-index (6).



**Figure 2.** *Year-wise publications.*

#### ***Publications by Year:***

The publication's status on wetland tourism is shown in Figure 2 from 1985 to December 31, 2022. The first paper was published by (Oza, 1985). In 1986, there was just the publication of two articles, and 1987 and 1988 saw the publication of just one paper.

1993 saw the publication of nothing while 1989 to 1992 saw the publication of 13 articles. Wetland tourism articles were only published in 129 pieces from 2001 to 2012, 34 research papers from 1994 to 2000, and 356 papers from 2013 to 2022. This table demonstrates an increase in wetland tourism publications after 2010.

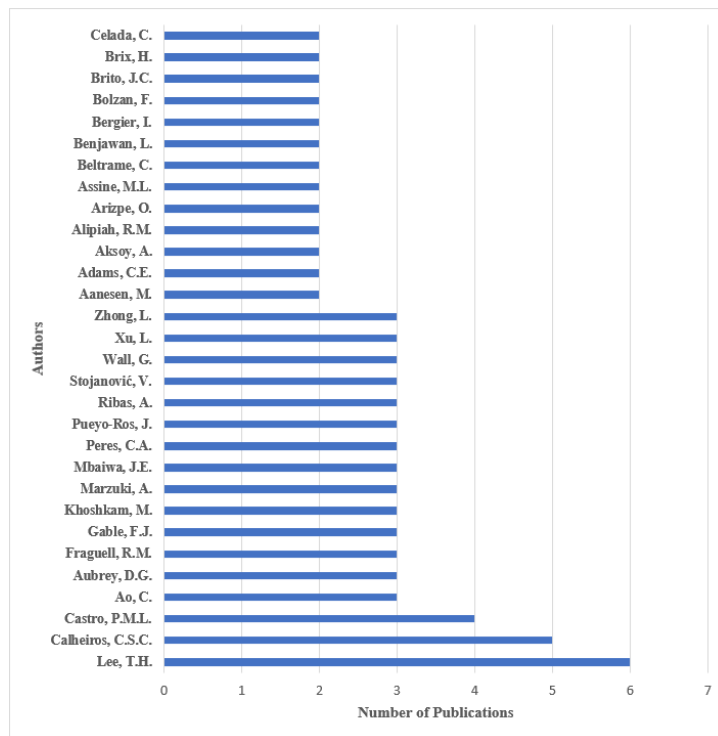


Figure 3. Authors with the highest publications.

#### Publication by Author:

Figure 3 depicts the author who has written at least two articles on wetland tourism. A total of 159 writers provided 281 published documents. Regarding wetland tourism, 60 authors published just 1 research paper, 82 authors wrote 2 articles, 14 authors have published 3 papers, 1 author only published 4 papers, 1 author only wrote 5 documents, and only 1 author published 6 articles.

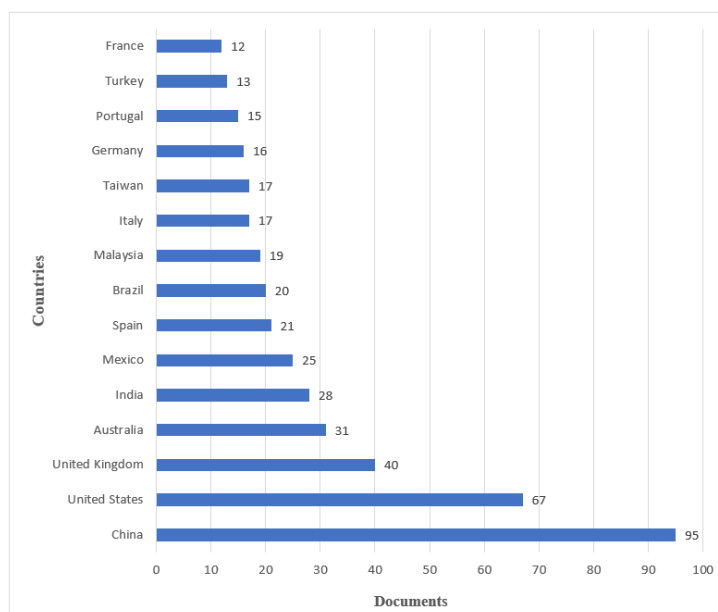


Figure 4. Countries wise publications.

### Articles by Country:

Figure 4 depicts the overall contribution of each country to wetland tourism publications. The top 15 countries were the only ones considered in this analysis. According to the Scopus database, China contributed the most articles on wetland tourism, with 95, followed by the USA with 67, the UK with 40, Australia with 31 articles, and India with 28 research papers. Publications from other nations, including Mexico, Spain, Brazil, Malaysia, Italy, Taiwan, Germany, Portugal, Turkey, and France. The overall results indicate that China and the United States are the two countries that promote wetland tourism the most.

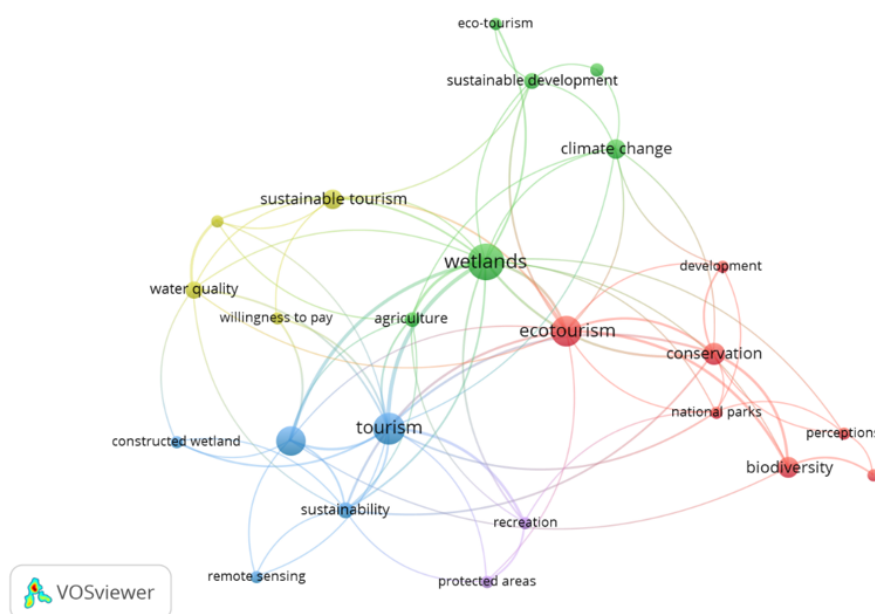
**Table 5.** Top 10 Most Cited Keywords

KEYWORDS	FREQUENCY OF OCCURRENCE
WETLAND	198 (9%)
ECOTOURISM	97 (5%)
BIODIVERSITY	88 (4%)
TOURISM	84 (4%)
SUSTAINABLE DEVELOPMENT	79 (4%)
ECOSYSTEM	60 (3%)
ECOSYSTEM SERVICE	59 (3%)
ENVIRONMENTAL PROTECTION	59(3%)
WATER QULAITY	57(3%)
CLIMATE CHANGE	56(3%)

Table 5 shows the top 10 most cited keywords in the field of wetland tourism. *Wetland* (198), *Ecotourism* (97), *Biodiversity* (88) and *Tourism* (84), *Sustainable Development* (79), *Ecosystem* (60), *Ecosystem Service* (59), *Environmental Protection* (59), *Water Quality* (57), *Climate Change* (56). The results revealed that wetland, ecotourism, and biodiversity are the most frequently occurrence keywords in wetland tourism.

### Science Mapping

Science mapping examines the connections among the components of research (Baker, Kumar, & Pandey, 2021; Cobo et al., 2011). They involve citation analysis, co-citation analysis, co-authorship analysis, bibliographic coupling, and co-word analysis, co-occurrence. The author used co-occurrence of the author's keywords and co-citation analysis.



Source: Extracted from VOS viewer using Scopus Database

**Figure 5.** Co-occurrence of authors keywords.



**Co-occurrence of authors' keywords:** Co-occurrence analysis: Co-occurrence analysis on keywords generates a grid of areas and their relationships in a scientific field (Dhiman & Arora, 2024; Merigó et al., 2020). The visual network of the authors' keywords' co-occurrence is displayed in Figure 5. The selected full counting technique included only 24 items in the dataset of 1788 keywords that matched the minimal requirement of 5 occurrences.

There were five clusters containing 24 items with a total connection strength of 135. These are the descriptions of the clusters:

**Cluster 1 (Red):** (Ecotourism and Conservation) contains 7 items. With 37 occurrences, "Ecotourism" was the most frequent word in the cluster. It was also positioned at the core of the network, and nearly every other keyword was related to it. The terms "conservation" (19), "biodiversity" (17), "tourism development" (6), and "perception" (6) were also noteworthy.

**Cluster 2 (Green):** (Wetlands and Climate Change); in this cluster, the keywords “wetlands” (56) and “climate change” (15) are the most frequent word occurrences. Other keywords are “Sustainable development” (11), “Agriculture” (9), and “Coastal Wetland” (8).

**Cluster 3 (Blue):** (“Tourism” (40) and “Ecosystem Services” (35)) and other keywords are “Sustainability” (11) and “Remote Sensing” (7), “Constructed Wetland” (7).

**Cluster 4 (Yellow):** (“Sustainable Tourism” (15) and “Water Quality” (13)) are the most frequently used keywords. Other keywords are “Eutrophication” (7) and “Willingness to Pay” (7).

**Cluster 5 (Purple):** (“Recreation” (7) and “Protected Areas” (7)) are the most occurrence keywords and the total link strength of “Recreation” 10 and “Protected Area” are 5.



**Source:** Extracted From RStudio

**Figure 6.** *Word cloud.*

## Word Cloud

Figure 6 shows that the most highlighted keywords are “wetlands”, “ecotourism”, “biodiversity”, “ecosystem”, “tourism”, “tourism development” and many more. These keywords are emphasised in both the word cloud and the co-occurrence of the authors’ keywords analysis, indicating that these are the primary themes in this field. Numerous studies are also being conducted on these themes.

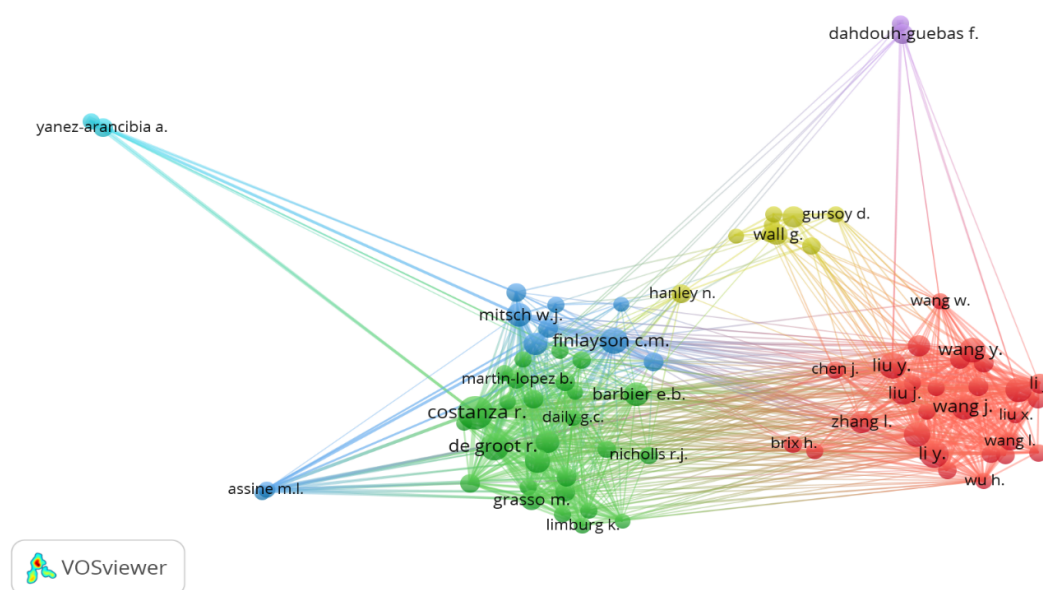


Figure 7. Co-citation of authors.

### Co-citation of the authors

Figure 7 shows the Co-citation of authors in wetland tourism. This figure confirms 6 clusters with 78 authors. The top 10 co-citations of the authors are Costanza r. (113 citations and total link strength 2193), Li y. (80 citation and links strength 1438), De groot r. (79 citations and 1546 total link strength), Finlayson c.m. (70 citations and 966 total link strength), Liu y. (citations 68 and 1213 total links strength), Zhang j. (67 citations and links 1133) and Wang y. (67 citations), Wang j. (67), Zhang y. (64 citations and 1037 links strength), and Farber s. (61 citation and links 1215).

### Discussion and Conclusion

This study presents a bibliometric analysis of wetland tourism from 1985 to December 31, 2022, encompassing the entire publication period in this field and enabling the creation of an exhaustive overview. In this study, research question 1 (RQ1) reveals that Lee (2009, 2013) and Liqueste et al. (2013) are the most cited works in the field of wetland tourism. Specifically, Lee (2013) garnered 563 Scopus citations, while Liqueste et al. (2013) received 405 Scopus citations within the same domain. The (RQ2) results indicate that Lee TH is the leading author with a total of 1381 citations, followed by CHAREF A, DRAKOU EG, EGOH B, GURNEY L, KATSANEVAKIS S, LIQUETE C, and PIRODDI C with 405 citations. Additionally, there has been a significant increase in wetland tourism research since 2014. Research Question 3 (RQ3) presents the data on annual publications related to wetland tourism from 1985 to 2022. The first paper was published by Oza in 1985. The period from 2021 to 2022 saw the highest number of publications, totalling 52. Lee TH is the most prolific author with six publications, followed by Calheiros, C.S.C with five, and 60 authors have published one paper each. China is the leading contributor with 95 articles, followed by India with 28. Further results regarding (RQ4) indicate that wetland, ecotourism, biodiversity, tourism, and sustainable development are the most frequently cited keywords. The (RQ5) findings suggest that the co-occurrence of the author's keywords displays five clusters in various thematic colours, and the co-citation analysis identifies Costanza R. with 113 citations and a total link strength of 2193, alongside Li Y. with 80 citations and a link strength of 1438.

The current study focuses on research trends, published documents, citations, productive authors and journals, universities, keywords, co-occurrence, and co-citation in wetland tourism. This study examined the wetland tourism area using bibliometric analysis for future research. The comprehensive results indicate that research on wetland tourism has seen significant growth according to the documents spanning from 2010 to 2022. The comprehensive results suggest that research on wetland tourism has seen considerable growth according to documents spanning from 2010 to 2022. Notably, the Ramsar Convention discussed wetland tourism for the first time during the Conference of the Parties in 2012, (Destination Wetland Report, 2012). The study's findings can aid researchers and stakeholders in wetland tourism by shedding light on topics such as ecotourism and conservation, the impact of climate change on wetlands, the interplay between tourism and ecosystem services, sustainable tourism practices, recreational activities, and the work of various researchers in the community and sustainable tourism development (Lee, 2013). Additionally, it can provide insights into tourist motivation, attitudes, satisfaction, and future behaviour (Lee, 2009), the current state

of wetlands (Liquete et al., 2013), residents' attitudes towards wetland tourism development (Lepp, 2007), and the involvement of residents in ecotourism (H. Zhang & Lei, 2012). This study highlights the theoretical implications of the growing interest in wetland tourism and its various facets, guiding future research in this domain. The insights provided can help researchers and stakeholders comprehend wetland tourism's evolving dynamics, facilitating informed decision-making and the adoption of sustainable development strategies in wetland tourism initiatives.

### Limitations and Future Scope

The study has certain limitations. First, only the "Scopus" database was used in this investigation. Subsequent research utilised databases such as WOS, Dimensions, and others. Second, the VOS viewer software was the only tool utilised to analyse this study. In addition to the VOS viewer, other tools can be used in future research, including Gephi, Tableau, CiteSpace II, and Bibexcel. Sustainable development in wetland tourism is another study area that will receive attention in the future (M. Ghoochani et al., 2020). Future studies should look at ecotourism and conservation, wetland and climate change, tourism and ecosystem services and sustainable tourism, communities getting involved in conservation, and how wetland ecotourism is maintained. These research areas are likely to gain popularity in the coming years.

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