A STUDY ON AUTHORSHIP PATTERN IN ESTUARY RESEARCH [2015-2018]

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ABSTRACT

Estuarine ecosystem is the most productive and protective ecosystem in the marine environment. It has been carried out many of the important functions like feeding, breeding for few marine organisms. It has a buffer zone of the marine ecosystem and protects organisms from the natural calamities. The present study attempts to analyze the authorship pattern of the published documents on estuary research for the period from 2015 to 2018. The primary data for the present study was collected from Web of Science database and totally 11805 records were retrieved for analysis. The analysis includes the year-wise publications, estuary contributions by Top 10 authors, Authorship pattern, Average Author per Publication and Degree of collaborations in the chosen field. The results show that year-wise publications maximum number of articles 3159 was published in 2018. The author Zhang J has contributed 110 articles and the three author contribution is dominant (2965 publications). The range of Average Author per Publication is 3.57 in 2018. The mean value of the Degree of Collaboration is 0.89.

Keyword: Scientometric, estuary, authorship pattern, degree of collaboration, Web of Science.

INTRODUCTIONS

In 1969, Vassily V. Nalimov & Z. M. Mulchenko found the term 'scientometrics' whose etymology is traced to the Russian word 'naukometriya'. This was used for the analysis of publications in Science & Technology. The word 'scientometrics' has become familiar to the research people all over the world, particularly, in the year 1978, when the Journal "Scientometrics" was initiated by T. Braun.

The study of Scientometrics includes the communications especially, in science, the quantitative and the qualitative facet of the Science of Science, and the general policy of the scienceThe Scientometrics is mostly done by using bibliometrics Laws and principles which the impact of scientific publications could be known. The research analysis of scientific publications is an important aspect of research activities in information science in recent years. The performance of the scientific and social science research publications could be studied by scientometric analysis, and it will helpful to identifying the performance of scientific activities by applying statistical application from the sources of information. The main purpose of the scientometric study is to identify and find out forms of literature, ranking of journals country and language-wise distribution of publications, authorship pattern of the published documents, etc. Hence, the present study analyzes the Authorship pattern in Estuary Research during the period from 2015 to 2018.

Objectives

The major objectives of the present study is

- To study the year-wise distribution
- To investigate the top 10 authors contribution
- To examine the authorship pattern
- To analyze the average author per publication
- To evaluate the degree of collaboration

This study is based on the publication data retrieved from Web of Science (WoS) database at the Global for the period from 2015 to 2016. A researcher has downloaded 11805 records during the study period for further analysis.

REVIEW OF LITERATURE

Natarajan (2019) has studied the research productivity on Neutrino during the period from 1989 to 2018. He analyzed the year-wise publication, source-wise distribution, Relative Growth Rate and Doubling time and testing applicability of Bradford's Law of scattering of publication on Neutrino Research.

Bhui and Sahoo, (2018) have examined the trend of Public Library Research in India. The data was gathered from e-Shodhganga database hosted by INFLIBNET Centre. A total number of 71 theses were analyzed during the study period from 1977 to 2016. It was found in that Karnataka University ranks first with the highest number of theses (8.45%) contributed in the area of Public Library Research. The study explores that from the state of West Bengal only 4 theses have been awarded in the field of public library during the study period.

Garg and Tripathi, (2018) have discussed about the Indian output in Bibliometric and Scientometrics and its impact. A total number of 902 papers were analyzed in the bibliometric assessment of individual journals and group of journals, studies related to collaboration and so an. The authors from India have contributed 100 research papers. The study concluded that among the disciplines of science, the sub-disciplines related to medicine received the highest priority. It also indicated that the subject of library and information science received the maximum emphasis. The findings of their study investigated that the field of medicine as a discipline received the highest attention as compared to other disciplines.

Sivakumaran and Sanjeevi (2018) investigated the scientometric analysis of research contribution in the current science. This study reveals the 4121 articles published in the printed version of Current Science Journal during the period from 2013 to 2017. The tools like simple percentage, Relative Growth Rate and Doubling Time are also applied for further analysis. The study proves that that the highest number of publications (877 articles) in the year 2015 and lowest of 756 articles published in 2014.

Singh, (2017) has investigated a Bibliometric Analysis on Pearl: A Journal of Library and Information Science during the period between 2011 and 2016. The research has analyzed total number of 233 research papers published in Pearl Journal. The study found that the Indian authors contributed more research articles than the foreign authors and the state of Karnataka has contributed more articles (81). The average number of author per paper is 1.82% and the average author per paper is 0.55%.

Kanagaraj, (2016) has evaluated a bibliometric analysis of Aquaculture Outputs from Scopus database from 199 to 2013. A total number of 1,06,227 bibliographical records were analyzed. Out of 1,06,227 publications, the highest number of publications was recorded year 2013 (13,474 articles). The other areas like year wise distribution, productivity of authors, word count are also analyzed by adopted appropriate laws.

Senthilkumar and Sanjeevi, (2015) have analyzed the authorship pattern in the Humanities Journal of Annamalai University. A total number of 216 articles were analyzed during the period of study from 2007 to 2011. The maximum of 68 articles are published in the year 2007 and minimum of 41 in the year 2010. The majority of publications was single author (55.09%) followed by double, triple and multiple-authors. The department of History has contributed more number of articles (44). The study revealed that the majority of authors referred Book as a cited source (53-27%).

Sudhier Pillai and Priyalakshmi, (2013) have attempted to analyze the bibliographic information of 1076 research publications of Scientists from Central Tuber Crops Research Institute. In the year 2006 published the maximum of 169 artilces. The average number of publications per year was 97.82. The Collaborative authors' contribution was 87.68% and degree of collaboration was 0.87. Bradford's law does not fit to their research.

RESULTS

Table 1: Year wise Distribution of Estuarine Publications

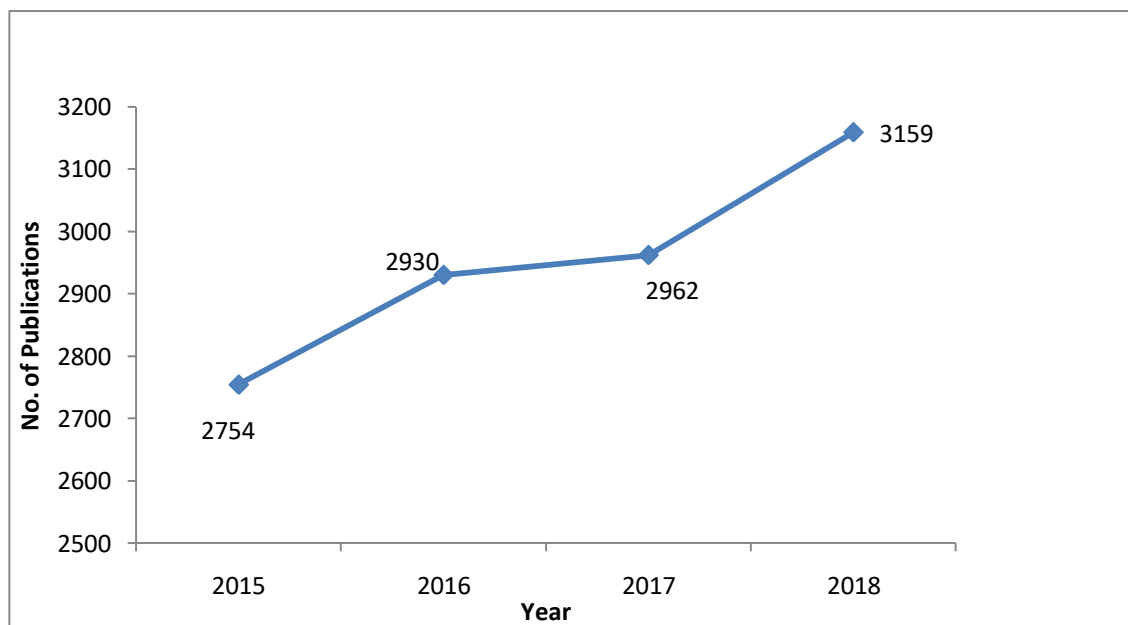| S. No.	Year	Number of Publications	Cumulative Publications	Percentage
1	2015	2754	2754	23.33
2	2016	2930	5684	24.82
3	2017	2962	8646	25.09
4	2018	3159	11805	26.76
Total		**11805**		

Table 1 depicts the year-wise distribution of estuarine research output during the year from 2015 to 2018 and a total of 11805 records were published the study period. The highest number of publications 3159 (26.76 %) was found in the year 2018. The lowest publications 2754 (23.33 %) were noticed in 2015. The overall result shows that the year-wise publication trend is in increasing order during the period of study.

Table 2: Top 10 Authors

S. No	Author	Publications
1	Zhang J	110
2	Zhang Y	101
3	Zhang H	89
4	Li Y	88
5	Connolly RM	85
6	Li J	82
7	Liu M	82
8	Liu Y	76
9	Yang Y	76
10	Adams JB	67

From the above Table-2, it is clearly noticed that the author Zhang, J. has contributed 110 articles and occupies first position among Top ten authors followed by Zhang, Y who has contributed 101 articles. Adams JB (67) has published minimum number (67) articles and occupies 10th position.

The author contributions in estuary research were categorized like single, two; three to > 10 authors were analyzed and presented in Table 3.

Table 3: Authorship pattern

Author	2015	2016	2017	2018	Total
Single Author	340	373	307	322	1342
Two Authors	723	684	717	695	2819
Three Authors	643	775	743	804	2965
Four Authors	448	482	519	574	2023
Five Authors	284	267	354	343	1248
Six Authors	178	168	161	170	677
Seven Authors	65	66	73	143	347
Eight Authors	28	26	31	35	120
Nine Authors	20	41	22	33	116
> 10 Authors	25	48	35	40	148
Total	**2754**	**2930**	**2962**	**3159**	**11805**

Table 3 shows that the Authorship pattern of the estuary research publication during the study period. It is observed that, totally 11805 authors contributed articles in the field of estuary research. There is a variation among the authors contribution in the study period. In the year 2015, two author contribution is dominant (723 records) compared with the years between 2016 and 2018. The overall results show that 2965 records published with three authors followed by 2819 records with two authors. The least number of publications (116) was found with Nine authors.

Table 4: Average Author per Publication

Year	No. of Publications	Total No. of Authors	AAPP
2015	2754	9205	3.34
2016	2930	10047	3.43
2017	2962	10176	3.44
2018	3159	11292	3.57

From the above table-5 reveals that, the Average Author per Publication (AAPP) during the period of study indicated that the maximum number of authors were contributing in the year 2018 with the 11292 (3.57 %) when compared with the previous year 2017 with the publication 10176 (3.44 %) records. The range of AAPP is from 3.34 to 3.57.

The degree of collaboration among Single versus Multiple author is analyzed and given in Table-5.

Table 5: Degree of Collaboration

Year	Single Author	Multiple Author	Total Publications	Degree of Collaboration
2015	341	2413	2754	0.88
2016	372	2558	2930	0.87
2017	307	2655	2962	0.90
2018	321	2838	3159	0.90
Total	**1341**	**10464**	**11805**	**0.89**

From the above table-6, it is found that that the Degree of collaboration in the estuarine research is in increasing trend during the study period. The multiple authors' contribution is more dominant (10464 records) compared to single author (1341 records). The mean value of degree of collaboration is 0.89.

CONCLUSION

Based on the analyzed results, the present study reveals that the year-wise contribution on estuary research during the study period is in increasing trend. The multiple author contributions are more dominant. The Average Author Per Publication values are also increasing year by year. The degree of collaboration is also proved that the multiple authors published more records on estuary research during the period of study.

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