
MAPPING OF WORLD-WIDE CAMEL RESEARCH PUBLICATIONS: A SCIENTOMETRIC ANALYSIS

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ABSTRACT

This paper analyses publication output in the field of camel research as indexed in CAB Direct Online database covering the period 1963 – 2012. It reports on India's comparative strength in world science and technology (S&T) output in this field. It is observed that a total of 4,923 publications were published during the year 1963 to 2012 as per CAB Direct Online. The average number of publications published per year was 98 papers. The highest number of papers i.e. 256 was published in the year 2012. The spurt in literature output was reported during 2000-2012. India is the top producing country with 354 papers (7.19%) followed by Egypt with 284 papers (5.76%). The top five most preferred journals by the scientists were: Journal of Camel Practice and Research with 641 papers (13.02%) followed by Assiut Veterinary Medical Journal with 193 papers 3.92%), Indian Journal of Animal Sciences with 186 papers (3.77%), Indian Veterinary Journal with 164 papers (3.33%) and Revue d'Elevage et de Medecine Veterinaire des Pays Tropicaux with 92 papers 1.87%). The top medium of communication is journal article with 4,164 papers (84.58%) followed by conference papers with 209 papers (4.25%). English was the most predominant language used by the scientists for communication with 4496 papers (91.32%). The prolific author is Gahlot, T.K. who contributed 173 papers (3.51%) followed by Faye, B. with 108 papers (2.19%).

Keywords: Camel research, Scientometrics, India, CAB Direct,

Introduction

A camel is an even-toed ungulate within the genus *Camelus*, bearing distinctive fatty deposits known as 'humps' on its back. The two surviving species of camel are the dromedary, or one-humped camel, which is native to the Middle East and the Horn of Africa and the Bactrian, or two-humped camel, which inhabits Central Asia. Both species have been domesticated and they provide milk, meat, hair for textiles or goods such as felted pouches, and are working animals. There are around 14 million camels alive as of 2010, with 90% being dromedaries, mostly living in the Horn of Africa, the Sahel, Maghreb, Middle East and South Asia. Camel is living in the northern part of India and plays an important role in the rural life. Therefore, this paper attempts to analyse publication in the field of camel research as indexed in CAB Direct Online database covering the period of 1963 to 2012.

Objectives of the Study

The main objective of this study is to analyze the research output in camel research, as reflected in its publications output during 1963-2012 in CAB Direct Online database. In particular, the study focuses on the following objectives:

- i. To study the total number of publications output on camel research based on CAB Direct Online database for the period 1963 - 2012

- ii. To study the share of Indian contribution in the field of camel research
- iii. To study the top 10 countries in camel research
- iv. To study the top 20 prolific authors in the field of camel research
- v. To study the top 20 journals publishing more research papers on camel research

Methodology

The CAB Direct Online has been used to retrieve the data for 50 years (1963 – 2012) by searching the keyword 'Camel' in the Title field. The total number of records retrieved by CAB Direct Online database is 4,923.

Results and Discussion

Growth of Publication on Camel Literature

The study revealed that during the period 1963-2012, a total of 4,923 publications were published on camel research. The highest number of publications is 256 papers in 2012. The lowest publication is 1 in 1963. It is very interesting to note that there was not even a single publication listed during the years 1962 to 1966. The average number of publications published per year was 95 and the spurt in literature output was reported during 2000-2012. The year-wise publication growth is furnished in Table-1.

Table – 1

Growth of Publication on Camel Research

S. No.	Year	No. of Papers	S. No.	Year	No. of Papers
1	1963	1	24	1991	130
2	1967	2	25	1992	214
3	1970	2	26	1993	134
4	1971	25	27	1994	125
5	1972	33	28	1995	108
6	1973	37	29	1996	99
7	1974	47	30	1997	122
8	1975	46	31	1998	187
9	1976	44	32	1999	111
10	1977	45	33	2000	177
11	1978	37	34	2001	129
12	1979	46	35	2002	110
13	1980	74	36	2003	129
14	1981	69	37	2004	205
15	1982	84	38	2005	172
16	1983	63	39	2006	152
17	1984	107	40	2007	181
18	1985	71	41	2008	179
19	1986	91	42	2009	185
20	1987	116	43	2010	222
21	1988	92	44	2011	255
22	1989	114	45	2012	256
23	1990	95		Total	4,923

CABI Code Analysis

CABICODES have been applied to records to indicate the broad subject areas within which they fall, and consist of five characters: two identical alphabetic characters and three digits. CABICODES enable searchers to locate general subject categories which are not easy to retrieve using descriptors alone, and save time and money by helping them to exclude irrelevant information from their searches. The list of top 10 CABICODES covered by this study are furnished in Table-1 which clearly indicates the preferred areas of research by the scientists.

Table-1
Top 10 CABICODE

Sl.No.	CABI Code	Keywords	Nos.
1.	LL600	Animal Physiology and Biochemistry (Excluding Nutrition)	1,175
2.	LL820	Parasites, Vectors, Pathogens and Biogenic Diseases of Animals, (Discontinued March 2000)	762
3.	QQ010	Milk and Dairy Produce	573
4.	LL860	Non-communicable Diseases and Injuries of Animals	529
5.	LL060	Draught Animals	520
6.	LL800	Animal Health and Hygiene (General)	485
7.	LL821	Prion, Viral, Bacterial and Fungal Pathogens of Animals, (New March 2000)	418
8.	LL822	Protozoan, Helminth, Mollusc and Arthropod Parasites of Animals, (New March 2000)	382
9.	QQ500	Food Composition and Quality	379
10.	LL250	Animal Reproduction and Embryology, (New March 2000)	338

Preferred types of Publications

The study reveals that the major source of publications covered by CAB Direct Online database on camel research is journal articles with 4,164 papers (84.58%) followed by conference papers with 485 papers (9.85%). Book chapter ranks third position with 88 (1.78%) and abstracts and books are in the fourth and fifth places with 110 (2.23%) and 18 (0.36%) respective. The top 10 types of publications are furnished in Table-2

Table-2
Top 10 Types of Publications

Sl.No.	Document Type	Nos.
1.	Journal article	4,164
2.	Conference paper	485
3.	Book chapter	88
4.	Abstract only	110
5.	Book	18
6.	Thesis	16
7.	Bulletin article	15
8.	Correspondence	13
9.	Conference proceedings	10
10.	Annual	4

Most preferred Journals

The most preferred journals by the scientists involved in camel research were: Journal of Camel Practice and Research with 641 papers (13.02%) followed by Assiut Veterinary Medical Journal with 193 papers (3.92%). The study revealed that out of top five most preferred journals by the camel researchers, three journals viz., Journal of Camel Practice, Indian Journal of Animal Sciences (186 papers) and Indian Veterinary Journal (164 papers) are published from India which clearly indicates that the contribution of India in Camel research is vital. The top 20 most preferred journals are listed in Table-3 with the number of papers published.

Table-3
Top 20 preferred journals by Scientists

Sl.No.	Journal Title	Nos.
1.	Journal of Camel Practice and Research	641
2.	Assiut Veterinary Medical Journal	193
3.	Indian Journal of Animal Sciences	186
4.	Indian Veterinary Journal	164
5.	Revue d'Elevage et de Medecine Veterinaire des Pays Tropicaux	92
6.	Tropical Animal Health and Production	89
7.	Veterinary Medical Journal Giza	71
8.	Anatomia Histologia Embryologia	58
9.	Veterinary Practitioner	56
10.	Camel Newsletter	54
11.	Veterinary Parasitology	50
12.	Journal of Animal and Veterinary Advances	45
13.	Journal of the Egyptian Veterinary Medical Association	45
14.	Veterinary Record	43
15.	Veterinary Research Communications	42
16.	Pakistan Veterinary Journal	38
17.	Milchwissenschaft	35
18.	Animal Reproduction Science	33
19.	Bulletin of Animal Health and Production in Africa	33
20.	Journal of Camelid Science	33

Prolific Authors

The study reveals that Gahlot, T.K. is the most prolific author in camel research who published 173 papers (3.51%) followed by Faye, B with 108 papers (2.19%). It is observed that out of the top five scientists who contributed more papers in camel research, three are Indians viz., Gahlot, T.K. (173 papers), Sahani, M.S. (84 papers) and Khanna, N.D. (74 papers). Table-4 lists the top 20 prolific authors in the field of camel research.

Table-4
Most Prolific Authors

Sl.No.	Author Name	No. of Papers
1.	Gahlot, T. K.	173
2.	Faye, B.	108
3.	Sahani, M. S.	84
4.	Khanna, N. D.	74
5.	Wernery, U.	70
6.	Higgins, A.J.	61
7.	Mayhew, I.G.	61
8.	Snow, D.H.	61
9.	Yagil, R.	60
10.	Singh, A. P.	54
11.	Kataria, A. K.	49
12.	Nagpal, S. K.	49
13.	Rai, A. K.	48
14.	Allen, W. R.	46
15.	Chouhan, D. S.	46
16.	Wang, J. L.	46
17.	Higgins, A. J.	43
18.	Wade, J. F.	43
19.	Snow, D. H.	42
20.	Allen, W.R.	41

Country-wise Distribution of Publications

The study reveals that India is the top country in camel research with its contribution of 354 papers which is nearly 7.19% of the global research output on camel research followed by Egypt with 284 papers (5.76%). Saudi Arabia ranks third position with 216 papers (4.38%). The top 10 countries based on number of publications are furnished in Table-5.

Table-5
Top 10 Countries

Sl.No.	Country	No. of Publications
1.	India	354
2.	Egypt	284
3.	Saudi Arabia	216
4.	Sudan	197
5.	Iran	167
6.	Kenya	164
7.	Rajasthan	116
8.	Nigeria	93
9.	Ethiopia	82
10.	Africa	81

Predominant Languages

It is observed that English is the most predominant language used by the scientists for communication of camel research with 4,496 papers (91.32%) followed by Russian with 121 papers (2.45%). The top 10 predominant languages are furnished in Table-6.

Table-6
Predominant Languages

Sl. No.	Language	No. of Publications
1.	English	4,496
2.	Russian	121
3.	Chinese	92
4.	French	86
5.	German	61
6.	Arabic	49
7.	Persian	28
8.	Turkish	7
9.	Spanish	6
10.	Japanese	5

Conclusion

The scientometric study on camel research based on CAB Direct Online database reveals that India is the major producer of scientific research output with 354 publications which is around 7.19% of the global research output on camel research. The other interesting fact is that the most prolific author in this field is Gahlot, T.K. with 173 papers (3.51%), who is an Indian. It is also important to know that out of the top five scientists who contributed more papers in camel research, three are Indians viz., Gahlot, T.K. (173 papers), Sahani, M.S. (84 papers) and Khanna, N.D. (74 papers). The study revealed that out of top five most preferred journals by the camel researchers, three journals viz., Journal of Camel Practice, Indian Journal of Animal Sciences (186 papers) and Indian Veterinary Journal (164 papers) are published from India which clearly indicates that the contribution of India in Camel research is vital.

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