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# LIMNOLOGY LITERATURE IN OKLAHOMA LIBRARIES

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# **INTRODUCTION**

Opportunities for the study of limnology are significant in Oklahoma. Approximately 500 named rivers and creeks occur in the state together with a large number of impoundments (1). The study of limnology, as with any scientific discipline, depends on access to journals. The relevant journals of limnology, as with other eclectic sciences such as agriculture (2) and ecology (3), have been defined as the journals which are most often cited by those workers who publish in the field.

To identify relevant journals, I used the analysis of cited literature for 1975 called *Journal Citation Reports* (*JCR*) published in conjunction with *Science Citation Index* (*SCI*) (4). In these reports the frequency with which authors in various science journals cite other science journals is given. Thus, for example, *JCR* indicates those journals which are cited by authors of articles published in such limnology journals as *Limnology and Oceanography* (*LO*) and in *Archiv für Hydrobiologie* (*AH*). I combined the list of titles cited by authors for these two journals for the year 1975 as reported in *JCR* and assume that this list of journals cited in *LO* and *AH* provides a reliable definition of such literature of limnology. Then I determined which of these journals are available in libraries in Oklahoma. A similar investigation has been done previously for ecology journals in the two major Oklahoma university libraries (5).

Next, I selected ten of the important academic and research libraries, representing insofar as possible the various geographical areas in the state, to determine the availability of limnology literature (Table 1). I then consulted the Oklahoma Union List of Serials (OULS) (6) to de-

TABLE 1. The fifty-two most frequently cited journals in limnology as revealed by Journal Citation
Reports of Science Citation Index, 1975. The table records volume numbers at which current
subscriptions begin for the journals in the ten libraries included in the survey. Titles are abbre-
viated according to the form used in BIOSIS.

	Cameron U. Lawton	Kerr Lab. Ada	NEOSU Tahlequah	NWOSU Alva	OSU Stillwater	OU Norman	ECOSU Ada	SEOSU Durant	SWOSU Weatherford	Tulsa U. Tulsa
Journal Title (frequency cited)										
Limnol. Oceanog. (397)	V.14-	<b>V.11-</b>			V.1-	<b>V-1</b>			V.1-	V.6-
Arch. Hydrobiol. (144)					<b>V.61</b> -	V.66-				
J. Fish. Res. Board.										
Can. (101)		V.26-			V.9-	V.8-				
Ecology (81)	V.1-		V.48-	V.48-	V.1-	<b>V</b> .1-	V.1-	<b>V.21-</b>	<b>V.31-</b>	<b>V</b> .1-
Deep-Sea Res. (79)					V.1-	V.1-				V.1-
J. Mar. Biol. Assoc. U.K. (64)					<b>V</b> .1-	V.38-				
Science (64)	V.51-	V.141-	<b>V</b> .133-	V.65-	V.5-	V.13-	V.62-	V.120-	V.1-	V.13-
Nature (48)			V.229-		V.110-	V.41-	V.235-			
J. Phycol. (47)	V.9-	V.3-			V.1-	V.1-	V.3-			
J. Geophys. Res. (45)			V.65-		V.1-	<b>V.1-</b>				<b>V</b> .1-
Mar. Biol. (45)					V.1-	V.1-				<b>V</b> .1-
Int. Ver. Theor. Angew. Limnol. Verh. (38)					V.1-					and the second second
Hydrobiologia (35)		V.37-			V.17-	V.1-				
Int. Rev. Gesamten Hydrobiol. (35)						<b>V</b> .57-				

	Cameron U. Lawton	Kerr Lab. Ada	NEOSU Tahlequah	NWOSU Alva	OSU Stillwater	OU Norman	ECOSU Ada	SEOSU Durant	SWOSU Weatherford
Biol. Bull. (32) J. Mar. Res. (31)	V.126-		V.128-		V.63- V.8-	V.1- V.1-			V.32-
Geochim. Cosmochim. Acta (28)					<b>V.</b> 1-	V.1-			V.32-
Proc. R. Soc. London Biol. Sci. (22) J. Anim. Ecol. (20) J. Ecol. (20) Ecol. Monogr. (19) Helgol. Wiss.	V.38- V.1-		V.34- V.57-	<b>V</b> .37-	V.77- V.1- V.1- V.1-	V-76- V.1- V.1- V.1-	<b>V</b> .20-	<b>V</b> .57-	V.19-
Meeresunters. (19) Cons. Int. Explor. Mer. J. (19) Can. J. Zool. (18) J. Exp. Mar. Biol. Ecol.			<b>V</b> .47-		V.29-	V.29-			V.28-
(18) Oikos (18) Mem. Ist. Ital. Idrobiol. Dott. Marco Marchi (18)					V.2- V.1-	V.1- V.1-			
Comp. Biochem. Physiol. (17) Earth Planet Sci.					V.28-	V.1-			V.35-
Lett. (17) Sewage Works J. (17) Schweiz. Z. Hydrol. (16	)	<b>V</b> .7			V.1- V.1- V.27-	V.1- V.1- V.33-			
J. Phys. Oceanog. (15) Am. Nat. (14) J. Biol. Chem. (14)	V.60- V.242-		V.103- V.240-	V.105-	V.56- V.1-	V.1- V.1- V.1-	<b>V</b> .253-		V.89- V.212-
J. Am. Chem. Soc. (13) Anal. Chem. (12)	V.79- V.8-		V.87- V.19-	V.96- V.39-	V.1- V.1-	V.1- V.1-	<b>V.42-</b>	V.80-	<b>V</b> .19-
Proc. Nat. Acad. Sci. USA (12)			V.55-		<b>V</b> .1-	<b>V</b> .1-	<b>V</b> .33-		<b>V</b> .57-
Environ. Sci. Technol. (11) J. Oceanogr. Soc. Jpn.	V.8-	V.2-	<b>V</b> .5-	V.8-	<b>V</b> .1	<b>V</b> .1-	<b>V</b> .1		<b>V</b> .1-
(11) Tellus (11) Physiol. Plant. (10) Z. Wiss. Zool. Abt A (10) (ceased publ. 1973)					V.1- V.1-	V.2- V.1-			
Am. Geophys. Union EOS Trans. (9) Can. J. Microbiol. (9) Mitt. Int. Ver. Theor. Angew. Limnol. (9)		<b>V</b> .17-			V.1- V.1-	V.1- V.1-			
Trans. Am. Fish. Soc. (8 Am. J. Sci. (8)	)V.96-	<b>V</b> .92-	<b>V.</b> 270-		V.66- V.1-	V.35- V.1-	<b>V</b> .99-	V.98-	
Appl. Microbiol. (ceased publ.) (8) Pol. J. Ecol. (8)		<b>V</b> .1-			<b>V</b> .1-	<b>V</b> .1-			V.29-
Naturwissenschaften (8) Plant Physiol. (8) Z. Fisch. Hilfswiss. (8)	)		V.40-		V.1- V.1-	V.9- V.1-	<b>V.</b> 43-		V.36-

termine which of these libraries have current subscriptions to titles in this population of limnology journals. Librarians were queried for information about their current subscriptions to limnology journals in those libraries which are not included in the *OULS*. In either case only current subscriptions are recorded. Information in Table 1 does *not* include all holdings of journals whose titles are listed there.

Fifty-two titles were cited eight times or more in 1975 in the two key limnology journals LO and AH (Table 1). These 52 cited titles are assumed to be the journals limnologists depend on most heavily in connection with their work. LO with 397 is the most frequently cited journal in the 1975 literature. AH was second with 144 citations.

Forty-four of the 52 most cited titles are currently received by various Oklahoma libraries, while eight are not currently received by any of the ten libraries. The University of Oklahoma Libraries receive 43; Oklahoma State University Libraries receive 41. All of the English-language titles on the list are received at one or more libraries within the state. Of the titles not received anywhere in the state, all are published either in Europe or in Japan.

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### REFERENCES

- 1. J. W. MORRIS, C. R. GOINS and E. C. McREYNOLDS, *Historical Atlas of Oklahoma*, ed. 2 rev. and enl., University of Oklahoma Press, Norman, Oklahoma, 1976, p. 6.
- 2 E. GARFIELD, Curr. Contents 20: 5-11 (1975).
- 3. P. K. ANDERSON, BioScience 16: 794-795 (1966).
- 4. Journal Citation Reports of Science Citation Index Volume IX, Institute for Scientific Information, Philadelphia, 1976.
- 5. T. H. MILBY, Okla. Librarian 19: 122-123 (1969).
- 6. Oklahoma Union List of Serials, Oklahoma State University, Stillwater, Oklahoma, 1975.

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