

POC: Doug Ricketts
 Large Lakes Observatory
 University of Minnesota
 10 University Drive
 Duluth, MN 55812
 Tel: 218-726-7826
 Fax: 218-726-6979
 Email: ricketts@d.umn.edu

LAST UPDATED: 22 January 2000

R/V Blue_Heron FINAL 1999

CRUISE DATES	MAP INDEX/AREA/ PURPOSE	P.I./INSTITUTION/ PROPOSAL NO.	PORTS	DAYS/AGNCY/ STATUS/ CLEARANCE
13 APR 18 APR	GL4/Superior/ BASS	Churchill/WHOI/ OCE-9712871	Duluth Duluth	6/NSF/F
30 APR 30 APR	GL4/Superior/ Physics	Ralph/UMN-LLO/ OCE-9724432	Duluth Duluth	.5/NSF/F
06 MAY 08 MAY	GL4/Superior/ Physics	Ralph/UMN-LLO/ NA86RG0033-6083	Duluth Taconite Ha	2.5/NOAA/F
09 MAY 09 MAY	GL4/Superior/ Chemistry	McManus/UMN-LLO/ University funds	Taconite Ha Taconite Ha	1/STATE/F
10 MAY 11 MAY	GL4/Superior/ Geophysics	Brown/UMN-LLO/ OCE-9712871	Taconite Ha Duluth	1.5/NSF/F
24 MAY 30 MAY	GL4/Superior/ Physics	Ralph/UMN-LLO/ OCE-9712871	Duluth Duluth	6.5/NSF/F
11 JUN 16 JUN	GL4/Superior/ ROV	Urban/MTU/ NAGL-98-03B	Duluth Duluth	6/NOAA/F
19 JUN 25 JUN	GL4/Superior/ Physics	Ralph/UMN-LLO/ OCE-9712871	Duluth Duluth	6.5/NSF/F
26 JUN 26 JUN	GL4/Superior/ Educational	Munson/UMN-Duluth/ University funds	Duluth Duluth	.5/STATE/F
28 JUN 02 JUL	GL4/Superior/ Geology	Brown/UMN-LLO/ NA86RG0033-6080	Duluth Duluth	5/NOAA/F

15 JUL	GL4/Superior/	Wattrus/UMN-LLO/	Duluth	.5/NSF/F
15 JUL	Geophysics	OCE-9724432	Houghton	
16 JUL	GL4/Superior/	Johnson/UMN-LLO/	Houghton	6/STATE/F
21 JUL	Geology	Weinert Foundation	Marquette	
22 JUL	GL4/Superior/	Johnson/UMN-LLO/	Marquette	1/STATE/F
22 JUL	Geology	University funds	Marquette	
23 JUL	GL4/Superior/	Ralph/UMN-LLO/	Marquette	1/NSF/F
23 JUL	Physics	OCE-9724432	Houghton	
24 JUL	GL4/Superior/	Brown/UMN-LLO/	Houghton	4.5/NSF/F
28 JUL	Geology	OCE-9712871	Duluth	
30 JUL	GL4/Superior/	Johnson/UMN-LLO/	Duluth	.5/STATE/F
30 JUL	Educational	University funds	Duluth	
06 AUG	GL4/Superior/	Urban/MTU/	Duluth	6/NOAA/F
11 AUG	ROV	NAGL-98-03B	Duluth	
14 AUG	GL4/Superior/	Ralph/UMN-LLO/	Duluth	7/NSF/F
20 AUG	Physics	OCE-9712871	Duluth	
29 AUG	GL4/Superior/	Wattrus/UMN-LLO/	Duluth	4/NOAA/F
01 SEP	Geophysics	NA86RG0033-6080	Duluth	
05 SEP	GL4/Superior/	Wattrus/UMN-LLO/	Duluth	2/NSF/F
06 SEP	Geophysics	OCE-9724432	Houghton	
07 SEP	GL4/Superior/	Wattrus/Cartwrig/	Houghton	2/Other/F
08 SEP	Geophysics	U/Imperial College	Duluth	
14 SEP	GL4/Superior/	Ralph/UMN-LLO/	Duluth	.5/STATE/F
14 SEP	Educational	University funds	Duluth	
15 SEP	GL4/Superior/	Brown/UMN-LLO/	Duluth	7/NSF/F
21 SEP	Geology	OCE-9712871	Duluth	
23 SEP	GL4/Superior/	McManus/UMN-LLO/	Duluth	4/STATE/F
26 SEP	Chemistry	LCMR	Two Harbors	
27 SEP	GL4/Superior/	Brown/Sterner/UMN/	Two Harbors	1/STATE/F
27 SEP	Chemistry/Biology	University funds	Duluth	
28 SEP	GL4/Superior/	Ralph/UMN-LLO/	Duluth	.5/STATE/F

28 SEP	Educational	University funds	Duluth	
30 SEP	GL4/Superior/	Johnson/UMN-LLO/	Duluth	.5/STATE/F
30 SEP	Educational	University funds	Duluth	
08 OCT	GL4/Superior/	Whiteside/UMN-Dulu	Duluth	1/STATE/F
09 OCT	Educational	t/University funds	Duluth	
18 OCT	GL4/Superior/	Churchill/WHOI/	Duluth	3/NSF/F
20 OCT	BASS	OCE-9712871	Duluth	
23 OCT	GL4/Superior/	Schnurrenburger/UM	Duluth	.5/STATE/F
23 OCT	Educational	N/University funds	Duluth	
06 NOV	GL4/Superior/	Wattrus/UMN-LLO/	Duluth	4/NSF/F
09 NOV	Geophysics	OCE-9712871	Duluth	
15 NOV	GL4/Superior/	Ralph/UMN-LLO/	Duluth	.5/NSF/F
15 NOV	Physics	OCE-9712871	Duluth	
03 DEC	GL4/Superior/	Ralph/UMN-LLO/	Duluth	2/NOAA/F
04 DEC	Physics	NA86RG0033-6083	Duluth	
15 DEC	GL4/Superior/	Ralph/UMN-LLO/	Duluth	1/NSF/F
15 DEC	Physics	OCE-9724432	Duluth	
17 DEC	GL4/Superior/	Ralph/UMN-LLO/	Duluth	1/Other/F
17 DEC	Physics	NSF and NOAA	Duluth	
	GL4/Superior/	Ralph/UMN-LLO/		.5/NSF/F
	Physics	OCE-9712871		
	GL4/Superior/	Ralph/UMN-LLO/		.5/NOAA/F
	Physics	NA86RG0033-6083		

Agency	Funded	Proposed	TOTAL
-----	-----	-----	-----
NSF	48	0	48
NOAA	25	0	25
STATE	14	0	14
Other	3	0	3
-----	-----	-----	-----
TOTAL	90	0	90