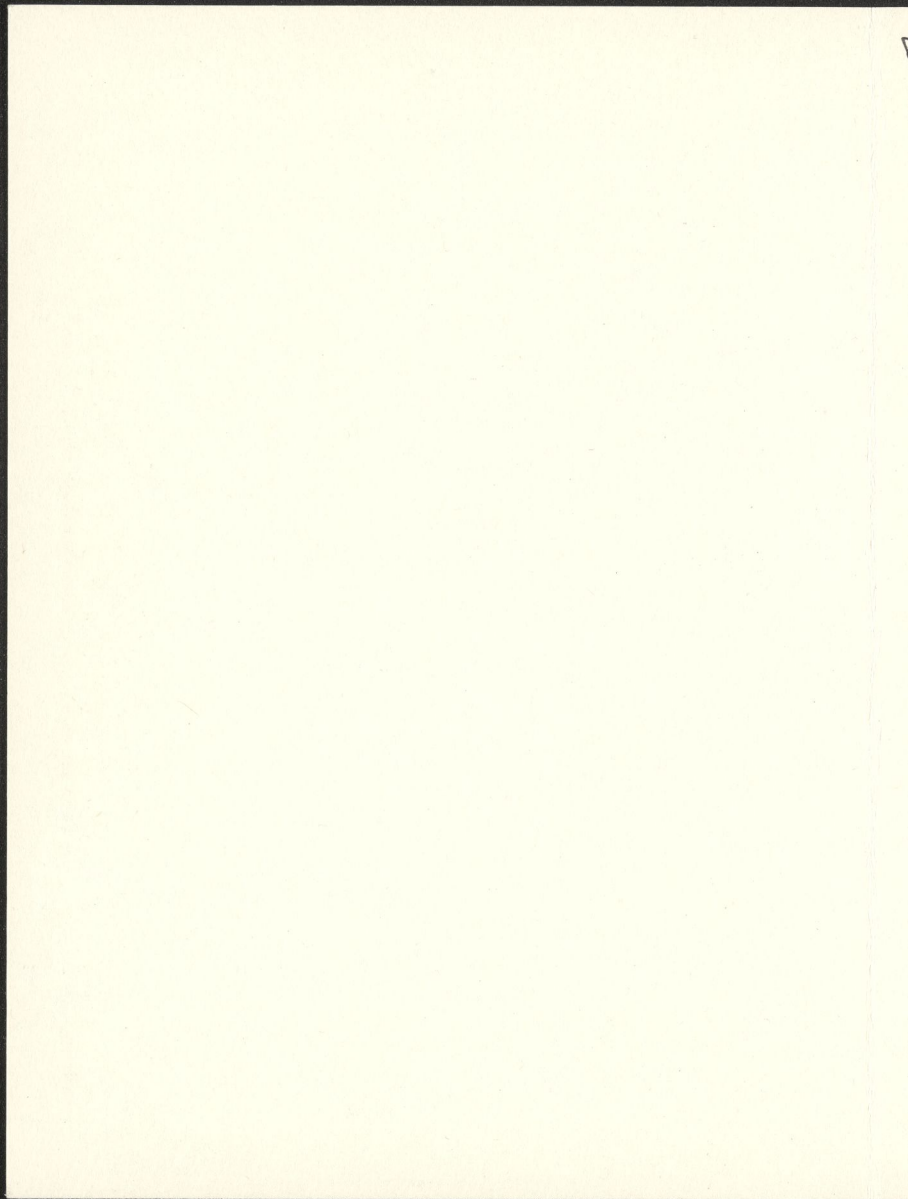


Montana Spring Creek - 159/1450 Albany '99



Dear Bud,

I want to thank you for the very valuable contributions you've been making to Montana T.U. lately. I know you've always been there for T.U., but in recent times because of the enormous pressure our fisheries face, your help is especially valuable. Thanks for coming to T.U. day and speaking for the Montana we all love. And thanks for helping us on the financial end and providing great advice. It is the support of leaders like you that get me through the days when being a trout advocate seems futile.

Best,

Bruce Farling

Drawing by Shirley Cleary
Helena, Montana

OFFICE OF THE GOVERNOR
STATE OF MONTANA



MARC RACICOT
GOVERNOR

STATE CAPITOL
HELENA, MONTANA 59620-0801

May 12, 1995

Bud Lilly
2007 Sourdough Road
Bozeman MT 59715

Dear Bud:

Thank you for agreeing to participate on the Governor's Whirling Disease Task Force. This letter will serve as your formal appointment to that group.

As I believe you have already been informed, your first meeting will be held in Helena May 23 at the Colonial Inn, 8:30am-4:30pm. We expect a second meeting sometime in August or September and a final meeting early this winter.

Under separate cover, you will be receiving more detailed information specific to the charge of the task force and what we hope to be some of your outcomes.

I envision the task force doing several things. Included would be creating a public/private partnership which will be a credible focal point for activities relating to whirling disease in Montana. I'd also like to see an action plan developed that addresses the scientific research and communication and education needs as well as the fisheries management and policy issues that need to be considered. I also believe that coalition building to identify individual groups who have skills, expertise or resources that can help address this problem is important. I would ask the task force to determine what is needed, what it will cost and provide recommendations on how to raise the necessary funding.

Montana's trout fisheries are unique, indeed, and without question whirling disease poses a serious threat - a threat to this very special resource, a lifestyle, and to our economic fiber. There is a sense of urgency, I believe, because the summer fishing season is approaching and we must ensure that everything possible is done to prevent the spread of the disease. But at the same time, we must ensure our residents and potential visitors that while we have a problem, Montana still provides world-class fishing opportunities.

We believe a task force is one of the best ways to draw resources and people together to deal with this issue quickly and to ensure that whatever can be done is done in a timely, efficient and coordinated way.

Again, my thanks to you for agreeing to take time out of what I know is a very busy schedule of yours to help us deal with what is a very serious problem.

Sincerely,

A handwritten signature in blue ink that reads "Marc Racicot".

MARC RACICOT
Governor

Whirling Disease Task Force:

Jim Ahrens
Montana Hospital Association
P O Box 5119
Helena MT 59604

Kirby Alton Ph D
815 Country Valley Road
Thousand Oaks CA 91362

Thomas R Anacker P C
P O Box 1247
Bozeman MT 59771-1247

John Bailey
Bailey's Fly Shop
P O Box 1019
Livingston MT 59047

Marshall Bloom MD
903 South Fourth
Hamilton MT 59849

Matt Cohn
Travel Montana
1424 Ninth Avenue
Helena MT 59601

Robin Cunningham
P O Box 311
Gallatin Gateway MT 59730

Patrick J Graham
Montana Fish Wildlife & Parks
PO Box 200701
Helena MT 59620-0701

Mike Hayden
American Sports Fishing Assn
1033 N Fairfax St Suite 200
Alexandria WA 22314

Dr Roger Herman
National Biological Service
Fish Health Laboratory
1700 Leetown Road
Kearneysville WV 25430

Karl M Johnson MD
115 Hitching Post Road
Bozeman MT 59715

Bob LeFever
Fran Johnson's Sport Shop
1957 Harrison Ave
Butte MT 59701

Bud Lilly
2007 Sourdough Road
Bozeman MT 59715

Dud Lutton
Montana Nature Conservancy
32 S Ewing
Helena MT 59601

Art Neill
Montana Power Company
40 E Broadway
Butte MT 50701

Roger Nelson
Nelson's Spring Creek Ranch
Route 38 Box 2023
Livingston MT 59047

Chris Somers
Haxby and Somers
P O Box 3008
Butte MT 59702

Marsha (Josh) Turner
Turner and Associates
908 Madison Ave
Helena MT 59601

Bruce Whittenberg
Independent Record
P O Box 4249
317 Cruse Avenue
Helena MT 59604

Ed Williams
Rainbow Valley Motel
P O Box 26
Ennis MT 59729

FWP Staff Members:

Paul Sihler
Larry Peterman
Ron Aasheim
Fred Nelson

Ref:Whirdis.TF 8/22/95

ANNUAL MEETING
of the
WHIRLING DISEASE FOUNDATION BOARD OF DIRECTORS
Saturday, April 13, 2002
10:00 a.m. to 5:00 p.m.
Grantree Inn, 1325 North 7th Avenue, Bozeman, MT 59715
Willow Room, Second Floor
(* indicates a board action is required)

TIME	SUBJECT	PRESENTER
10:00 am	Call to Order	Harry Piper
10:00 am	* Approval of October 18, 2001 Minutes	Harry Piper
10:10 am	* Vote for Board Membership and Officers	Harry Piper
10:20 am	* Financial/Development Report	Dave Kumlien Nancy Alston
11:15 am	Science Report	Jerri Bartholomew Ryen Anderson
1:00 pm	Lunch on Your Own	
2:00 pm	Recognition of Chris Francis, Tom Anacker, Karl Johnson, John Lutz, and Jim Belsey	Harry Piper
2:15 pm	Special Projects Report	Susan Higgins
2:45 pm	Board Committee Reports * Board Nominations Committee Executive Committee Job Descriptions * Advisory Committee Outreach <i>Visit from Rick Rosenthal, Visiting Professor of Science and Natural History Filmmaking</i>	Dudley Lutton Harry Piper/staff
4:00 pm	Adjourn	Harry Piper
7:00 pm	Reconvene for Jim Belsey's Celebration at Grantree Bar	
SUNDAY	Fishing! (See Dave for details)	

MINUTES

MEETING of the Board of Directors, Whirling Disease Foundation
October 20, 2001, Holiday Inn, Bozeman, MT 10 a.m. - 5 p.m.

Board members present: Harry Piper (President), Harry Murphy (Vice President), Nancy Alston (Secretary-Treasurer), Marshall Bloom, Tom Klein, Dudley Lutton, Tom Olivo

Board members conference in: Whit Fosburgh (first hour)

Board members absent: Kirby Alton (Piper proxy), Jim Belsey (Lutton proxy), Whit Fosburgh (Bloom proxy), Chris Francis (Piper Proxy) Bud Lilly, Ted Turner (Piper via Francis proxy), Irving Weissman (Bloom proxy)

Staff present: Jerri Bartholomew, Susan Higgins, Dave Kumlien, Wanda McCarthy

I. REVIEW AND APPROVAL OF MINUTES

Harry Piper opened the meeting, announcing a quorum with proxies. The April 16, 2001 minutes were reviewed and approved unanimously (motion Bloom, second Murphy).

II. FINANCIAL/DEVELOPMENT REPORT

Dave Kumlien and Nancy Alston presented the financial report, which is summarized in meeting handouts (attached to these minutes for those absent from the meeting). Dave reported that receivables are up from 2000, expenditures are kept to a minimum, net income is better off this year, and the debt listing is related to the Redband Resistance project which was never completed due to poor sampling conditions. Tom Klein requested that the board receive the financial information one week before the meeting to allow time for adequate board review of this information. Tom Olivo asked that staff also includes a receivables sheet in the packet. Financials were approved unanimously (motion Murphy, second Bloom).

Whit Fosburgh (by conference) summarized the status of Trout Unlimited's capital campaign to raise several million dollars for a national wild trout disease center. So far, the campaign has raised \$2M and another \$2M is assured. Whit and Harry P. suggested the WDF/TU merger discussion be tabled for another year.

Dave informed the board about the \$250,000 the Whirling Disease Foundation will receive from the U.S. Government. He thanked Whit and Harry Piper for writing the letter, and acknowledged Senator Burns' efforts in this area. Dave and Jerri Bartholomew will travel to Washington D.C. to meet with Tom Bell, Bill Knapp and others to finalize the language for payment. We need to start working on the next round of federal funding soon.

Dave also provided an update on corporate partners. WDF has become the featured environmental organization of 3M which donated \$20,000 and will promote the WDF on its website and possibly in its 2002 catalogs. Hodgman contributed \$10,000 this year, along with its hangtag program. Merchandise has been donated from Orvis, Sportif, Sage, and Powell. Cortland hangtags and Virtual Flyshop auctions still continue to bring in donations. The following grant are being pursued: Turner Foundation (applied for \$100,000; received \$75,000), Trout and Salmon (submitted for \$5,000), Norcross

(received \$6,300 for publication), Patagonia (applied and turned down), Montana Trout Foundation (received \$2,500), Cinnabar (applied and turned down). Board members still are WDF's best supporters. Dave also recognized donations made on behalf of deceased donor, Bernard Mendik.

Needs and issues from Dave's perspective: resurrect the Development Committee and hold meetings monthly or quarterly, more board involvement (Dave distributed one packet of information for each board member to pass on to someone else). Tom Klein suggested that the board take on some of the corporate partnership development work (e.g., Tom K. will contact St. Croix) and maintain those relationships to free up some of Dave's valuable time. Tom Olivo suggested the board expand its connections outside of the fishing industry; e.g., he suggests creating relationships with the big breweries.

III. SPECIAL PROJECTS REPORT

Sue Higgins presented updates on:

- ❖ The 2002 symposium to be held at the Denver Marriott on February 13-15, 2002. She provided handouts. Several items to note: on opening night, the meeting will kick off with a reception; WDF has secured rental of the entire Ocean Journey Denver aquarium for the Thursday evening banquet; one afternoon session will focus on resistant trout in a panel discussion with several noted scientists with varying viewpoints as invited speakers; we expect at least 50 papers and a large crowd from the Denver area. Meeting Co-Chairs are Dr. Jerri Bartholomew, Dr. Eric Bergersen (Colorado) and Peter Walker (Colorado). Dud Lutton recommends heavy development work in the Denver area and the creation of a donor event in the Denver area in association with the symposium.
- ❖ The American Fisheries Society publication on whirling disease (see handout) should be printed in early 2002. Jerri Bartholomew and Chris Wilson are co-editors. \$10,000 has been set aside for the publication raised through a grant from Norcross Foundation and through presale of copies to all who attended the symposium. Sue is negotiating with AFS for WDF to purchase the book at a discount for resale. Tom Klein felt the publication could and should be used as an excellent fundraising tool, adding to the credibility of the foundation.
- ❖ An end-of-year WDF newsletter will be distributed in November, 2001, to include the annual report and a fundraising piece.

IV. RESEARCH REPORT

Jerri Bartholomew presented a Powerpoint update on all projects funded by WDF:

McMahon Spring Creek - current research suggests spring creeks are high-risk habitat.

Nehring Filtration - Barry Nehring is working with Buckhorn Geotech to refine filtration substrates for his pond filtration project. Harry P. asked if Buckhorn will want to patent the equipment. Other issues include economic feasibility of the equipment, maintenance, and pond management.

Hedrick Comparative Resistance - suggested that WDF not fund this next year and allow this research to be combined with phase I of the resistant trout project.

Resistant Trout - Phase I is a controlled lab experiment and preliminary numbers show the Hofer strain to be more resistant. Interestingly, the Hofer strain was first introduced from America to Germany in the 1880's. Spore counts and histology still need to be completed. Phase II will test for resistance to other pathogens, as well as studies on the mechanisms of resistance. Jerri will contract Hedrick and El-Matbouli to get a clarification on the rearing and crossing of the resistant strain prior to continued experimentation. Jerri suggests contracting with Dr. Bernie May to get a better read on the "purity" of the strain. Although this information is "breakthrough" Tom Klein suggests caution in presenting the message to the public at this juncture. Jerri agreed, also suggesting deletion of the terms "silver bullet", "German trout" and "immunogenetics" from any description of our funded research as they are misleading and misunderstood. This year, UCD requests \$123K, Munich \$122K, and UCD and additional \$10K for comparative genetics.

Upper Madison - Needs more oversight. Marshall will ask Dick Vincent for the historical data (30 years of stats). He feels more proof is needed, work is weak. Marshall suggested that if we continue funding this line of research, it should be conducted on the river and not in the lab. Jerri would like to see the data before we commit. Jerri would like to see the WDF participate more so we can get more productive information, make researchers more accountable, receive the information in a timely manner, and have a thorough plan in advance of the study.

Jerri would also like to see the foundation have a more active Science Review Committee for projects such as the Madison study. Tom Klein asked how the Resistant Trout study can be used for fundraising. Jerri agreed that something needs to be given to Dave to use for fundraising purposes. Tom Olivo added we have encouraging news and we do need to package it or someone else will.

V. ACTION ITEMS

1. 2000 Audit - It was decided that Dave and Nancy will spend time with Bill Hebron of Holmes and Turner to get the information we need expressed in the audit. There was some question of the quality of service we receive from Holmes & Turner. What do they charge? Are they competitive? It was suggested that a call be made to check on George Schram, CPA in re: the possibility of switching accountants (motion Bloom, second Olivo). Security bonding of officers and employees was also recommended and unanimously agreed upon (motion Murphy, second Alston).
2. 2002 Budget - Dave presented the proposed 2002 budget. It was suggested that Colorado fishing enthusiasts be drawn into fundraising at the symposium. Marshall recommended local banquet sponsors for the symposium. Dudley suggested inviting major donors to sponsor the banquet, and inviting Secretary of Interior Gayle Norton to speak at the banquet. The 2002 Budget was approved (motion Piper, second Klein) with the proviso that the Executive Committee meet to determine the fiscal allocation of the expected \$250 federal funding (motion Alston, second Olivo).
3. By-laws - Sue reviewed the revised by-laws which were approved (motion Bloom, second Olivo). A motion was made to address Board Membership Rules (Article V) such that 100% of the board will make an annual donation to cover costs of board mailings and meeting meals (motion Klein, second Olivo). Still to be determined: What is considered an excused and unexcused absence? Staff evaluations and development of a new Advisory Council were also discussed. It was agreed that the

committees need to be far more active. Bloom nominated Harry Piper to chair the Development Committee, second Klein, approved by all. Harry Piper nominated Marshall Bloom to chair the Science Committee, Tom Olivo seconded the motion; Marshall accepted the position. Dud Lutton will serve as Chair of the Board Nominating Committee. There was also discussion of setting up an Advisory Board to consist of non-voting board members. Until a technical Advisory Board is established, it was suggested that the Board Science Committee serve, in effect, as the Advisory Board to provide guidance on science and outreach priorities. Membership to all board committees will be determined by each Committee chair, and will be addressed at the next board meeting. Dudley will contact current board members before the next meeting to work more on new board membership and the composition of the Advisory Council.

4. In context of committee composition, Sue provided an update on activities of the National Partnership, emphasizing the importance of input provided by the WDF Science Committee.
5. Harry Piper moved to change the title for Dave from Development Director to Executive Director. Harry Piper will work on a job description for the Executive Director position (motion Murphy, second Bloom).

VI. ADJOURN AND NEXT MEETING

The annual spring meeting is set for **April 13, 2002**, and the fall end-of-year budget-setting meeting is set for **October 19, 2002**. Time, location and other information will be sent out prior to the meetings. The meeting adjourned at 4:30 pm.

Respectfully submitted, Wanda McCarthy
Wanda McCarthy, Office Manager, November 30, 2001

NOMINATION SLATE, 2002

- Whirling Disease Foundation Board of Directors and Officers -

Officers

President	<u>Harry Piper</u> _____
Vice President	<u>Harry Murphy</u> _____
Secretary/Treasurer	<u>Nancy Alston</u> _____

Board members

Nancy Alston
Kirby Alton
Marshall Bloom
Whit Fosburgh
Tom Klein
Bud Lilly
Dudley Lutton
Harry Murphy
Thomas Olivo
Harry Piper
R.E. Turner
Irving Weissman

Whirling Disease Foundation Board of Directors

Harry Piper, President
1260 Sunny Bear Road
Bozeman, Montana 59715
406.587.6381(home)
406.587.8595 (Fax)
406.580.6381 (cell)
hmpiper@mcn.net

Harry Murphy, Vice President
Bozeman Realty and Investors
48 Riverside Drive
Bozeman, Montana 59718
406.585.8873 (office phone and fax)
406.585.9347 (home)
murphy@avicom.net

Nancy Alston, Secretary/Treasurer
1021 Nelson Road
Bozeman, MT 59718
406-587-7577 (home)
406-587-8611 (home fax)
406-587-8883 (work)
njalston@hstrask.com

Dr. Kirby Alton
815 Country Valley Road
Thousand Oaks, CA 91362
805.379.1550 (home)
805.379.1851 (home fax)
513 Varney Road
Ennis, Montana 59729
406.682.7298 (Ennis home)
kirbyal892@aol.com

Dr. Marshall Bloom
663 Alvista Loop
Hamilton, Montana 59840
406.363.9275 (work)
406.363.3485 (home)
406.363.9286 (fax)
mbloom@atlas.niaid.nih.gov

Whit Fosburgh
Trout Unlimited
1500 Wilson Blvd., Ste. 310
Arlington, VA 22209-2310
703.284.9409 (work)
703.284.9400 (Fax)
wfosburgh@tu.org

Tom Klein
500 Green Ridge Drive
Bozeman, MT 59715
586-3701
tklein@imt.net

Bud Lilly (ex officio)
2007 Sourdough Road
Bozeman, Montana 59715
406.586.5140 (home)

M. Dudley Lutton
Strategies, Inc.
1807 W. Dickerson, Ste. D
Bozeman, MT 59715
514 Quaw
Belgrade, MT 59714
406.586.4810 (work)
406.586-5910 (fax)
406.388-7698 (home)
strategiesdud@mcn.net

Tom Olivo
Success Profiles
8012 Lookfar Way
Bozeman, Montana 59715
406.582.8885 (work)
406.582.8909 (fax)
406.582.8883 (home)
tolivo@successprofiles.com

R.E. Turner
Turner Ranches
P.O. Box 190
Gallatin Gateway, MT 59730
406.763.4419 (office)

Irv Weissman
B257 Beckman Center
Stanford School of Medicine
Stanford, CA 94305-5323
650.723.6747
irv@leland.stanford.edu

**WHIRLING
DISEASE
FOUNDATION**

P.O. BOX 327
BOZEMAN, MT
59771-0327

Phone: 406/585/0860
FAX: 406/585/0863
whirling@mcn.net

HOME PAGE:
www.whirling-disease.org

BOARD OF DIRECTORS

Harry Piper
President

Harry Murphy
Vice President

Nancy Alston
Secretary/Treasurer

Dr. Kirby Alton
Jim Belsey
Dr. Marshall Bloom
Whit Fosburgh

Chris Francis
Tom Klein
Bud Lilly

Wally Lutton
Thomas Olivo
R.E. (Ted) Turner
Dr. Irving Weissman

SCIENCE ADVISORY PANEL

Dr. David Baltimore
California Institute of Technology

Dr. Lee Hood
Institute for Systems Biology

Dr. Stanley Falkow
Stanford University

Dr. Robert Devlin
Fisheries & Oceans, Canada

STAFF & CONSULTANTS

Susan Higgins
Special Projects

David L. Kumlien
Development Director

Wanda McCarthy
Office Manager

Dr. Jerri Bartholomew
Science Coordinator

MISSION STATEMENT

To eliminate the threat of whirling disease to native and wild trout, char, salmon, and steelhead through support of research and education.



March 28, 2002

To: WDF Board
From: Dave
Re: Financial reports

Dear WDF Board,

Attached are copies of financials. Included are a copy of the Balance Sheet, Budget v. Actual, and a copy of a cash flow analysis for both income and expenditures by the month. I hope this information helps you prepare for the annual meeting. If you have questions you would like to have me address, please feel free to call or email me.

Regards,

Dave Kumlien
Executive Director

Enclosures

03/28/02

Whirling Disease Foundation
Balance Sheet
 As of March 28, 2002

	Mar 28, '02
ASSETS & EQUITY	
Current Assets	
Checking/Savings	
1000 - Checking Account	
1015 - Admin/Programs-Unrestricted	10,808.34
1020 - Symposium, Temp Restricted	
1020.11 - Clow Scholarship Program	291.00
1020 - Symposium, Temp Restricted - Other	11,791.98
Total 1020 - Symposium, Temp Restricted	12,082.98
Total 1000 - Checking Account	22,891.32
1120.05 - Money Market, DA Davidson	
1120.15 - Admin/Programs-Unrestricted	1,503.85
1120.17 - Dividends, Unrestricted	88.92
1120.57 - FR Travel, Temp Restrict	1,865.97
1120.45 - Symposium, Temp Restricted	
1120.46 - Proceedings Publication	10,000.00
1120.45 - Symposium, Temp Restricted - Other	981.95
Total 1120.45 - Symposium, Temp Restricted	10,981.95
1120.65 - Upper Madison Flow Project	6,859.70
Total 1120.05 - Money Market, DA Davidson	21,300.39
Total Checking/Savings	44,191.71
Accounts Receivable	
1200 - Accounts Receivable	-30.00
Total Accounts Receivable	-30.00
Total Current Assets	44,161.71
Fixed Assets	
1500 - Furniture & Fixtures	1,054.35
1505 - Office Equipment	17,471.49
1590 - Accum. Depreciation	-6,865.59
Total Fixed Assets	11,660.25
TOTAL ASSETS	55,821.96

03/28/02

Whirling Disease Foundation
Budget vs. Actual
 January 1 through March 28, 2002

	Jan 1 - Mar 28, '02	Budget
Income		
4005-10 · Contributions, Unrestricted	47,055.00	250,000.00
4500-01 · Interest Income Checking, UR	26.32	300.00
4500-02 · Dividend Income-Mny Mkt,UR	0.00	3,700.00
4005.20 · Contributions, Temp Restrict	139,500.00	250,000.00
4005.30 · Contributions, Symp, Temp Restr	20,856.08	30,000.00
Total Income	207,437.40	534,000.00
Expense		
6000 · Administraton		
6001 · Office		
6005 · Advertising	0.00	3,500.00
6010 · Bank Charges	13.50	125.00
6015 · Credit Card Fees	32.40	200.00
6020 · Computer Supplies & Repair	204.90	1,200.00
6025 · Copy & Printing	435.62	2,600.00
6035 · Dues & Subscriptions	567.83	500.00
6120 · Miscellaneous	0.00	1,500.00
6160 · Office Supplies	247.27	1,500.00
6240 · Postage	189.77	2,500.00
6350 · Legal & Accounting	1,500.00	3,000.00
6500 · Office Rent	705.00	2,820.00
6520 · Travel/Entertainment	1,665.30	2,500.00
6530 · Telephone & Internet	1,394.76	5,500.00
Total 6001 · Office	6,956.35	27,445.00
6540 · Salaries, Wages, Taxes, Benefit		
6541 · Salaries	8,955.74	45,250.00
6543 · Program Director, Hourly Wages	3,905.00	22,500.00
6547 · Secretary Wages	2,876.25	10,000.00
6550 · Health Insurance	5,154.78	20,620.00
6560 · Payroll Tax Expense	2,194.92	8,500.00
6890 · Workers Comp Ins	0.00	1,500.00
6540 · Salaries, Wages, Taxes, Benefit - Other	0.00	
Total 6540 · Salaries, Wages, Taxes, Benefit	23,086.69	108,370.00
6895 · Fundraising		
6895.01 · FR Travel & Entertain	825.06	10,000.00
6895.03 · FR Printing	419.60	6,000.00
6895.05 · FR Postage	46.48	4,000.00
6895.07 · FR Purchases	0.00	4,000.00
Total 6895 · Fundraising	1,291.14	24,000.00
Total 6000 · Administraton	31,334.18	159,815.00

03/28/02

Whirling Disease Foundation Budget vs. Actual January 1 through March 28, 2002

	Jan 1 - Mar 28, '02	Budget
6799 · Programs		
6800 · Education & Outreach		
6800.02 · Education & Outreach Other	49.32	5,000.00
Total 6800 · Education & Outreach	49.32	5,000.00
6900 · Symposium		
6900.01 · Symposium Printing	2,393.60	4,500.00
6900.03 · Sym Travel	4,014.80	6,000.00
6900.05 · Facility/Management	4,579.12	15,000.00
6900.07 · Communications	177.35	4,000.00
Total 6900 · Symposium	11,164.87	29,500.00
6930 · Research		
6930.01 · Contract Services-Science Coord	6,416.34	26,000.00
6930.10 · Comparative Resistance		
6930.13 · Genetic Comparison-May	10,000.00	10,000.00
6930.11 · Resistant Trout, El Matbouli	79,666.00	127,500.00
6930.12 · Resistant Trout, Hedrick	48,000.00	100,000.00
Total 6930.10 · Comparative Resistance	137,666.00	237,500.00
6930.71 · Nehring Filtration Project	0.00	10,000.00
6930.74 · Upper Madison Flow Project	0.00	7,500.00
6930.75 · YNP Tubifex Worm Study	3,340.00	10,000.00
6930.70 · Research Contingency		
6930.76 · European Trout Project-Zale	0.00	5,000.00
6930.70 · Research Contingency - Other	0.00	25,000.00
Total 6930.70 · Research Contingency	0.00	30,000.00
6930.80 · Colorado Worm Study	2,500.00	
Total 6930 · Research	149,922.34	321,000.00
Total 6799 · Programs	161,136.53	355,500.00
Total Expense	192,470.71	515,315.00
Net Income	14,966.69	18,685.00

Income	Total \$	Projected	
January			
Symposium Support	\$	5,000.00	Rec'd
Virtual Fly Shop Auctions	\$	500.00	Rec'd
Indiv. Donors & Board support	\$	20,000.00	\$12K
Mpls Fd-Piper Gift	\$	25,000.00	Rec'd
	Total \$	50,500.00	
February			
Virtual Fly Shop Auctions	\$	500.00	Rec'd
Symposium Support	\$	10,000.00	Rec'd
Indiv. Donors & Board Support	\$	5,000.00	Rec'd
	Total \$	15,500.00	
March			
Virtual Fly Shop Auctions	\$	1,000.00	Rec'd
Indiv. Donors & Board Support	\$	5,000.00	Rec'd \$2K
USFWS Grant	\$	137,000.00	Rec'd !!!!!!!!!!!!!
Symposium Support (USFWS)	\$	5,200.00	Invoiced
Symposium Registration Income	\$	10,000.00	Rec'd
	Total \$	158,200.00	
April			
Indiv. Donors & Board Support	\$	10,000.00	
Virtual Fly Shop Auctions	\$	1,000.00	
Symposium Registration Income	\$	5,000.00	
WDF rod sales from CO TU & West Denver	\$	3,000.00	
3M Foundation Grant	\$	20,000.00	
	Total \$	39,000.00	
May			
Indiv. Donors & Board Support	\$	15,000.00	
VFS Auctions	\$	1,000.00	
	Total \$	16,000.00	
June			
USFWS Grant #2	\$	37,500.00	
Hodgman Grant	\$	5,000.00	
Indiv. Donors & Board Support	\$	10,000.00	
Mpls Fdn-PFF	\$	25,000.00	
VFS Auctions	\$	1,000.00	
	Total \$	41,000.00	
July			
Mpls Fdn-PFF	\$	25,000.00	
Indiv. Donors & Board Support	\$	25,000.00	
VFS Auctions	\$	500.00	
	Total \$	50,500.00	
August			
Turner Foundation Grant	\$	75,000.00	
VFS Auctions	\$	500.00	
Indiv. Donors & Board Support	\$	15,000.00	
	Total \$	90,500.00	
September			
VFS Auctions	\$	500.00	
Indiv. Donors & Board Support	\$	10,000.00	
US Grant #3	\$	37,500.00	
	Total \$	48,000.00	
October			
Indiv. Donors & Board Support	\$	10,000.00	
VFS Auctions	\$	500.00	
Hodgman Grant	\$	5,000.00	

	Total	\$	10,000.00	
November				
Indiv. Donors & Board Support		\$	15,000.00	
VFS Auctions		\$	1,000.00	
	Total	\$	16,000.00	
December				
USFWS Grant #4		\$	38,000.00	
Indiv. Donors & Board Support		\$	40,000.00	
VFS Auctions		\$	1,000.00	
	Total	\$	41,000.00	
Income Grand Total	Total	\$	521,200.00	

March

Operations	\$	13,000.00	Paid
Yale Wildlife Park Rejuvenation	\$	3,500.00	Paid
Spring Creek Project	\$	10,000.00	Paid
Hudson Riverway Trail Phase 1	\$	48,300.00	Paid
St. Mark's Hospital Trail Phase 1a	\$	51,700.00	Paid
Maynard Street Trail Service Study	\$	10,000.00	Paid
Providence AFB	\$	10,000.00	Out
Syracuse Expressway	\$	5,200.00	Paid
Total	\$	161,700.00	

April

Operations	\$	13,000.00	
Providence AFB	\$	12,000.00	
Total	\$	25,000.00	

May

Operations	\$	13,000.00	
Providence Park Rejuvenation	\$	4,000.00	
St. Mark's Hospital Trail #7	\$	18,200.00	
Hudson Riverway Trail #7	\$	15,100.00	
Total	\$	49,440.00	

June

Operations	\$	13,000.00	
Total	\$	13,000.00	

July

Operations	\$	13,000.00	
Zinc Battery Trail Project	\$	4,000.00	
Lower Manhattan River Project	\$	7,000.00	
Total	\$	24,000.00	

August

Operations	\$	13,000.00	
Providence Park Turf Project	\$	10,000.00	
St. Mark's Hospital Trail #3	\$	18,750.00	
Providence Park Trail Phase 2	\$	14,750.00	
Providence Project	\$	10,000.00	
Total	\$	76,500.00	

September

Operations	\$	13,000.00	
Total	\$	13,000.00	

October

Operations	\$	13,000.00	
Total	\$	13,000.00	

November

Operations	\$	13,000.00	
------------	----	-----------	--

2002 Cash Flow Chart

Expense	Description	Expense	Status
January			
	Operations	\$ 13,000.00	Paid
1/7/02	Colorado Worm Study	\$ 2,500.00	Paid
1/15/02	El Matbouli-Resistant Trout Phase 1	\$ 28,500.00	Paid
	2002 symposium	\$ 1,000.00	Paid
	Total	\$ 45,000.00	
February			
	Operations	\$ 13,000.00	Paid
	2002 Symposium	\$ 4,000.00	Paid
	Total	\$ 17,000.00	
March			
	Operations	\$ 13,000.00	Paid
	Yellowstone Park-Rasmussen	\$ 3,340.00	Paid
	Spring Creek Project	\$ 10,000.00	Due!
	Hedrick-Resistant Trout Phase 1	\$ 48,000.00	Paid
	El Matbouli Phase 1 balance	\$ 51,166.00	Paid
	May Resistant Trout Genetics Study	\$ 10,000.00	Paid
	Proceedings-AFS	\$ 10,000.00	Due!
	Symposium Expenses	\$ 10,000.00	Paid
	Total	\$ 155,506.00	
April			
	Operations	\$ 13,000.00	
	Symposium Expenses	\$ 12,000.00	
	Total	\$ 25,000.00	
May			
	Operations	\$ 13,000.00	
	Yellowstone Park-Rasmussen/MSU	\$ 4,940.00	
	El Matbouli Resistant Trout #2	\$ 15,250.00	
	Hedrick Resistant Trout #2	\$ 15,250.00	
	Total	\$ 48,440.00	
June			
	Operations	\$ 13,000.00	
	Total	\$ 13,000.00	
July			
	Operations	\$ 13,000.00	
	Zale European Trout Project	\$ 5,000.00	
	Upper Madison Flow Project	\$ 7,500.00	
	Total	\$ 25,500.00	
August			
	Operations	\$ 13,000.00	
	Yellowstone Park Tubifex Project	\$ 10,000.00	
	El Matbouli Resistant Trout #3	\$ 18,750.00	
	Hedrick Resistant Trout #3	\$ 18,750.00	
	Filtration Project	\$ 10,000.00	
	Total	\$ 70,500.00	
September			
	Operations	\$ 13,000.00	
	Total	\$ 13,000.00	
October			
	Operations	\$ 13,000.00	
	Total	\$ 13,000.00	
November			
	Operations	\$ 13,000.00	

	El Matbouli Resistant Trout #4	\$	14,000.00		
	Hedrick Resistant Trout #4	\$	18,000.00		
	Total	\$	45,000.00		
December					
	Operations	\$	13,000.00		
	Total	\$	13,000.00		
	Expense Grand Total	\$	483,946.00		

March 13, 2003

To: Will Boyd
 Fred Dave
 Re: Financial Report

Dear Will, Fred:

Attached are copies of financials. Included are a copy of the Balance Sheet Budget V. Actual, and a copy of a cash flow analysis for both income and expense for the month. I hope this information helps you prepare for the annual meeting. If you have questions, you would like, I have the address, please feel free to call or email me.

Respectfully,

[Signature]
 Executive Director

Embargo

- Dr. Peter Pines
President
- Harry March
Vice President
- Nancy Olson
Secretary/Treasurer
- Dr. Steve Allen
- Jim Bell
- Dr. Marshall Bloom
- Walt Bushong
- Chris Egan
- Tom Gier
- Bob Jay
- Ray Linton
- James Olson
- F. B. (Bob) Turner
- Dr. Irving Ventresca
- Dr. David Bellmore
Director, Institute of Technology
- Dr. Lee Hood
Institute of System Biology
- Dr. Steven Galtsoff
Director, Librarian
- Dr. Robert Deane
Fisheries & Oceans, Canada
- Cliff G. Campbell, Ph.D.
- Dustin Higgins
Special Projects
- David L. Kneib
Development Director
- Wanda McCarthy
Office Manager
- Dr. John BarColumbo
Science Coordinator

MINNESOTA STATE UNIVERSITY
 The University of Aquaculture
 1000 University Drive
 St. Paul, MN 55108-1000
 Phone: 612/625-5000
 Fax: 612/625-5001
 Website: www.msu.edu/aquaculture

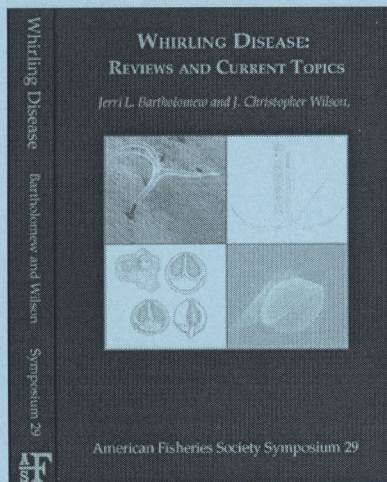


Special Pre-Publication Offer from AFS

Whirling Disease: Reviews and Current Topics

Symposium Number 29

Jerri L. Bartholomew and J. Christopher Wilson, eds.



This book is a compilation of the latest whirling disease research findings, along with seven invited review papers. It represents a peer-reviewed version of the proceedings of the seventh annual Whirling Disease Symposium held in February 2001, in Salt Lake City. It is also much more than that, given the value of its extensive and thoroughly-researched review papers.

The volume will be a valuable resource for researchers in the field as well as a reference volume for managers who have to make decisions on controlling whirling disease. This volume includes chapters on:

- The History of the Dissemination of Whirling Disease
- The Ecology of *Myxobolus cerebralis*
- Whirling Disease Prevention, Control, and Management
- Effects of *Myxobolus cerebralis* on the Salmonid Host
- Critique of Methods of Sampling and Reporting Pathogens in Populations of Fish
- Effect of Water Quality Variables on Viability of the *Myxobolus cerebralis* Actinospore

Special Pre-Publication

Price: \$38.00

Order by May 1, 2002

Sorry, no returns on this special offer

Stock Number: 540.29

List Price: \$69

AFS Members: \$48

Members Save \$19

ISBN# 1-888569-37-9

See Form on Back to Order

Mail or Fax this form to:

American Fisheries Society

Attn: Orders Department

1650 Bluegrass Lakes Parkway

Alpharetta, GA 30004

Ph: (678) 366-1411; Fax: (770) 442-9742

Please use code
"FL" when
ordering





American Fisheries Society Pre-Publication Book Order Form

Please send me:

	Qty	Price	Subtotal
Whirling Disease: Reviews and Current Topics Stock#: 540.29			

Shipping:

Add \$5.50 for the 1st copy, and \$2.00 for each additional copy shipped in the U.S.

Add \$7.50 for the 1st copy, and \$2.50 for each additional copy shipped outside the U.S.

Subtotal _____

TOTAL _____

No returns accepted on this order

Payment: All orders must be prepaid. Payment must be in U.S. currency or equivalent. Make checks payable to American Fisheries Society.

Check MasterCard Visa Total Amount _____

Card # _____ Exp. date _____

Signature _____

Ship to:

Name _____

Member # _____

Street address (no PO Box) _____

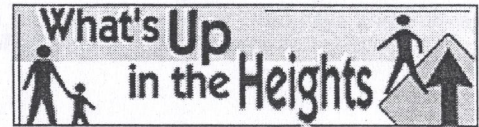
City _____ State/Province _____ Zip _____

Country _____ Phone (____) _____

Mail or Fax this form to:

American Fisheries Society
Attn: Orders Department
1650 Bluegrass Lakes Parkway
Alpharetta, GA 30004
Ph: (678) 366-1411; Fax: (770) 442-9742

**Please use code
"FL" when
ordering**

[Home](#)[News](#)[Sports](#)[Entertainment](#)[Weekly Features](#)[Special Sections](#)[Online Extras](#)[Classifieds](#)

Local/State • Wyoming • World/Nation • Business • Financial • Health • Opinion • Obituaries • On the Record • Weather

March 24, 2002

Last modified March 24, 2002 - 4:07 am

Lottery Numbers**Wednesday Drawings****Powerball:**

15-35-40-43-46

Powerball 33

Powerplay 3

Estimated Jackpot:

\$48 Million

Wildcard:

05-07-15-19-27

King of Spades

Estimated Jackpot:

\$130,000

Montana Cash:

01-05-10-17-19

Estimated Jackpot:

\$100,000

Rolldown:

25-27-41-43-50

Sports**Henckel Column: Whirling-resistant rainbows hot topic****Mark Henckel****MONTANA OUTDOORS**

In the trout world, there's still a big stir being caused by Hofer strain rainbow trout.

Hofer rainbows are the strain found at a German hatchery which, unlike their wild North American cousins, have proven to be as resistant as brown trout to whirling disease.

Whirling disease is a parasitic infection of the head and spinal cartilage that causes juvenile trout and salmon to swim erratically - in a whirling motion - making it difficult for them to feed and avoid predators. In severe infections, the disease can cause high rates of mortality in young-of-the-year fish, especially rainbow trout.

The disease is found in trout waters across the nation, including Montana and Wyoming.

ADVERTISEMENT — Click here to see the rest of the story, or scroll down



Hofer rainbows originated from fish brought over from North America to Germany about 150 years ago. "The hatchery there has had problems over the years with whirling disease, but it comes and goes," said Dave Kumlien, executive director of the Bozeman-based Whirling Disease Foundation. "It's conjecture, but what likely has happened is that they've been exposed to a fairly constant whirling disease exposure over time."

Kumlien talked about the ongoing research at a meeting of the Magic City Fly Fishers recently. And he said that the Hofer rainbows are currently a hot topic here and throughout the West.

At the eighth annual Whirling Disease Symposium, held in Denver in February, the more than 200 scientists gathered there were updated on the progress of disease testing that has been done on the Hofer strain at the University of California-Davis and at the University of Munich in Germany.

"The Hofer rainbow has similar resistance to whirling disease as brown trout," Kumlien said. "At severe levels of the infection, it will affect them too. But in light to moderate rates of exposure to the disease, they survive while other rainbow strains do not."

Much of the talk at the symposium at Denver and elsewhere in trout country, however, is what is going to be done with the strain now that it has been found.

"The Hofer rainbow is controversial," Kumlien said. "One possible outcome is to use the fish to replace stocks in waters that have been decimated by whirling disease.

"But some groups, like Trout Unlimited, oppose that," he added. "The state of Montana is not likely to stock it, because of their wild fish philosophy. And we (the Whirling Disease Foundation) aren't advocating for stocking it anywhere.

"But we do see it as valuable research," Kumlien said. "This year, they'll be testing it against other pathogens. It might be that it survives whirling disease, but can't survive other types of infections."

He also said that there was value in trying to figure out what other factors are at work in making the Hofer rainbows resistant to the disease. Is there something in the genetics? Are there antibodies?

Hofer rainbows will be crossed with other strains of rainbow trout in a laboratory setting. What type of resistance do the new hybrids have to whirling disease?

"If the first cross is not resistant, then it's not a dominant trait and that wouldn't help," Kumlien said.

But the notion of finding a whirling disease resistant rainbow trout continues to capture the imagination of the trout world.

"People on the panel in Denver seemed to think the stocking was imminent," Kumlien said. "That isn't the case at all. There isn't enough known about them at this point.

"I'm not sure stocking would happen a decade from now," he said. "Then, there may be some applications in some areas where this would be a good choice for stocking. But even then, that's not what the foundation is advocating.

"Our position is just to continue with the research as long as it's worthwhile," Kumlien said.

If the discovery of the strain does nothing else, he said that it shows that there is, indeed, hope for wild rainbows who are facing whirling disease in North America.

"This fish gives us hope that fish in the wild may develop resistance to whirling disease over time," he said. "Given enough time, wild rainbows may be able to live along with this disease."

Search

Keyword Search:

Go

Past Issues
(MM/DD/YY):

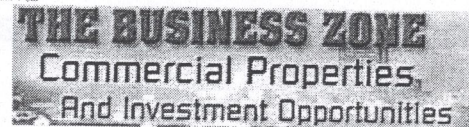
Go

You can learn more about the Whirling Disease Foundation at www.whirling-disease.org.
Mark Henckel is the outdoor editor of *The Billings Gazette*. His columns appear Thursdays and Sundays. He can be contacted by phone at: (406) 657-1395, or by e-mail at: henckel@billingsgazette.com

Copyright © The Billings Gazette, a division of Lee Enterprises.



Advertisements



[Back to Top](#) | [Home](#) | [News](#) | [Sports](#) | [Entertainment](#) | [Weekly Features](#) | [Special Sections](#) | [Online Extras](#) | [Classifieds](#)

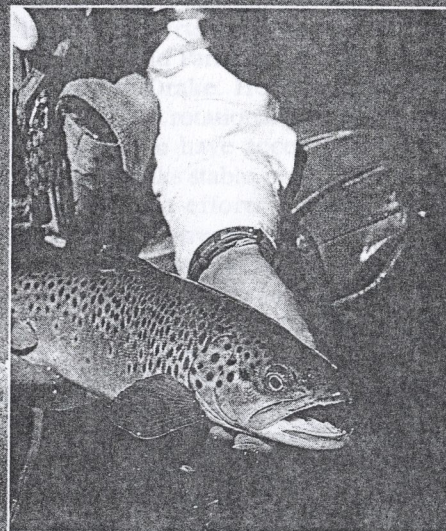
MILESNICK

HARRY PIPER

spring creeks

For Brandt Oswald's feature on other Montana spring creeks and for Bozeman-area fly shop and guide information, visit www.flyfisherman.com.

Rebuilt spring creeks and the East Gallatin River provide challenging pay-for-play trout fishing near Bozeman, Montana.



BARRY & CATHY BECK PHOTO

Stream restoration on Thompson and Benhart (below and inset) spring creeks have produced world-class spring-creek fishing on Tom and Mary Kay Milesnick's MZ Bar Ranch near Bozeman. Wild rainbow and brown trout in the creeks grow up to 20 inches, and there are even bigger trout on the East Gallatin River which also runs through the property. Barry & Cathy Beck photo.

SPRING-CREEK JUNKIES have a new playground in Bozeman, Montana. Benhart and Thompson spring creeks on Tom and Mary Kay Milesnick's MZ Bar Ranch near Bozeman are now managed as limited-access fee fisheries and provide better fishing than they have in many years.

Local anglers and a few visiting fly fishers have known about the waters for years, but the streams received little attention because they lacked quality fishing. They couldn't compete with the fishing available at the Livingston/Paradise Valley area spring creeks—DePuy's, Armstrong's, and Nelson's—less than an hour away.

All that has changed thanks to the Milesnicks, who began an extensive stream restoration project in 1992. Now both creeks offer quality trout fishing and have become great additions to any spring creek aficionado's itinerary.

In 1998, for a variety of reasons, including increased angler pressure and the need to pay for improvements, the Milesnicks established a fee for access to the streams and set a limit on the number of rods per day. The fishing is strictly catch-and-release, fly-fishing-only.

The 1,400-acre MZ Bar Ranch, which has been in the Milesnick family since 1936, has 3½ miles of Benhart

Spring Creek, 1 mile of Thompson Spring Creek, and 5½ miles of the East Gallatin River. Eight of these ten miles of streams are shared by no more than six anglers per day. Each stream has unique character and challenges, and some anglers have spent an entire day on just one small section of one stream.

In April 1992, Tom Milesnick bought an excavator and used it to dig silt out of the streams. He created deeper water and narrowed the streams to speed the flow and keep the streambed cleared of silt. Milesnick has used the excavator on different sections of the streams every April since 1992, and between Aprils he reads about stream improvement practices and talks with stream habitat experts such as Dick Vincent of Montana Fish, Wildlife and Parks and stream consultants Inter-Fluve and Buddy Drake. He also installed more fences and began using a rotational grazing program to limit how long the cattle have access to the streams. This keeps the streambanks stable.

The stream restoration efforts paid off, and word began to spread that the streams offered good fishing. For the past three years, the Milesnicks have given permission to as many as 30 rods a day for a total of more than 1,500 rods each year. They say they had to set

BARRY & CATHY BECK PHOTO



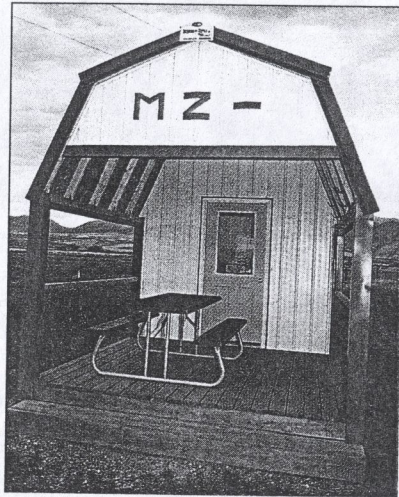
limits. Besides, the cattle market has declined in recent years, and a supplementary income was needed. Beginning in 1999, the Milesnicks set the daily fishing fee at \$50 per rod, with a daily maximum of six individual rods. Reservations are required.

Benhart Spring Creek

I FIRST HEARD ABOUT BENHART Spring Creek in the late 1970s through Mary Brooks, wife of the late outdoor writer Joe Brooks. After getting permission at the Milesnick home, I crawled along Benhart's banks eyeballing trout in the bright sun. All my casts were futile. Whenever the shadow of my fly line hit the shallow currents, the fish panicked and raced about, looking for nonexistent cover. The fishing was made especially tough by the poor, shallow stream conditions. It was so tough anglers said the trout would spook when you opened your car door. The fish are still spooky, but now they have deeper water in which to hide.

Benhart has a higher flow than Thompson, but it is only about half the size of the Paradise Valley spring creeks. It has more browns than rainbows, and the fish usually hold in the obvious deep holes and feed around their edges. Sometimes they feed in the riffles between holes. Most of the riffles are so shallow that when the

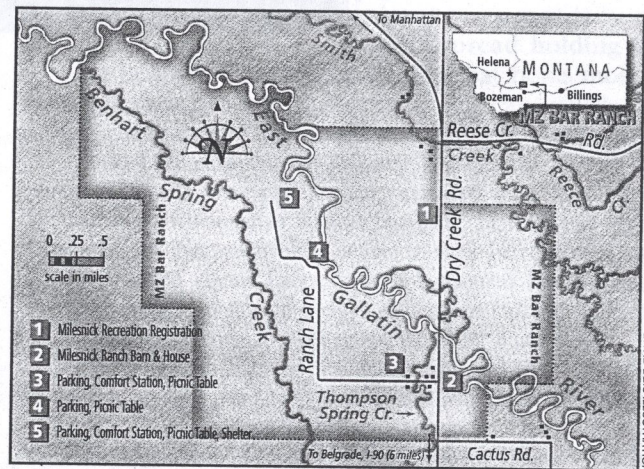
Thompson Spring Creek (below) has more rainbows than browns, and because of heavy weed growth, is more suited to dry-fly fishing than Benhart.



BARRY & CATHY BECK PHOTO

MILESNICK spring creeks

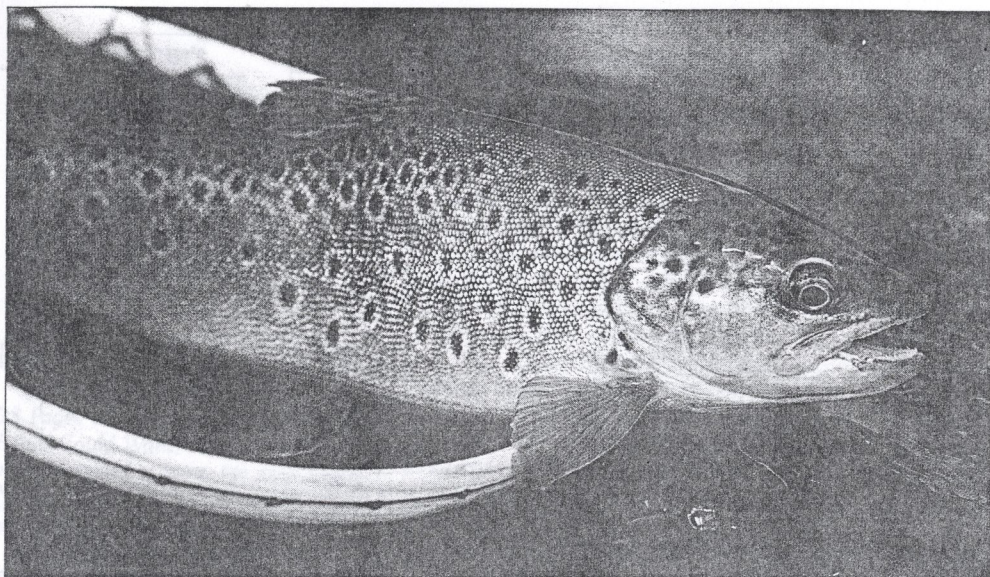
Only six rods per day can be reserved on the 10 miles of private water on Milesnick's MZ Bar Ranch. The daily fishing fee is \$50 per day



DAVID DEIS ILLUSTRATION



HARRY PIPER PHOTO



BARRY & CATHY BECK PHOTO

Together we caught and released three browns pushing 20 inches, four browns and six rainbows measuring about 17 inches, and several smaller fish.

Thompson Spring Creek

LIKE BENHART, Thompson Spring Creek is a meandering meadow creek with only a few bushes to snag your backcast. But its bright green weeds and undercut banks provide more widespread holding water

than Benhart. It's a dry-fly delight that holds more rainbows than browns. In summer, you can usually find a fish rising to Pale Morning Duns (PMDs), beetles, or ants.

Bud Lilly remembers fishing Thompson Spring Creek in 1935. "I was ten or eleven and caught fish with worms without too much trouble, but to tell you the truth, it's better fishing now. It was beat down by the cows even then. Later, when I started fly fishing, my mother would take me over (I couldn't drive yet) and sit and wait for me. I was using snelled Sandy Mites from Potts Flies in Hamilton, Montana, which sold for 35 cents apiece or three for a dollar, a lot of money in those days. I kept catching them in the bushes and breaking them off. There were more bushes then. My mother would say, 'Can't you use something a little less expensive than those 35-cent flies?'"

In July 1999, I took two members of the board of the National Fish and Wildlife Foundation to Thompson and got them into a few fat 14- to 16-inch trout that took PMD spinners. Unlike the surface feeders in the shallow Benhart riffles, the fish in Thompson keep sipping and give you more chances to catch them, as long as you don't line them or scare them with sloppy casts or startling movements on the bank. Because there are so many weeds in Thompson's narrow confines, weighted nymphs are tough to use. Dries or emergers are the way to go on Thompson.

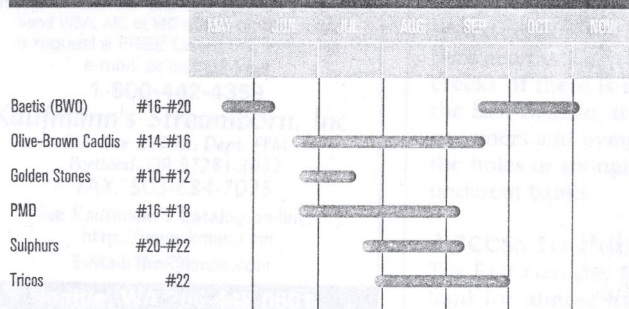
The stream does not originate on the MZ Bar, but it flows into the East Gallatin on the ranch. Its hatches are similar to those on Benhart.

East Gallatin River

DAVE KUMLIEN, FORMER OWNER of the Montana Troutfitters Shop in Bozeman and now development director of the Whirling Disease Foundation, sings the praises of the East Gallatin River on the MZ Bar Ranch.

"I've fished Milesnicks's since 1975 and guided on it since the early '90s," he says. "I always liked to bounce my clients over to the river as a relief from the one-fish intensity of the spring creeks. Because the creeks empty into the East Gallatin there, it's a rich and productive stretch with good hatches, some great riffles, fast banks

Continued on page 58



BARRY & CATHY BECK PHOTO

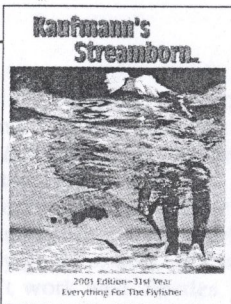
Spring-creek trout are famous for being wary, so approach the water carefully and keep a low profile. Sloppy casts and sudden movements will stampede the trout into deep holes and undercut banks.

fish feed, their dorsal fins and half their tails stick out of the water. Your first cast either catches one of those fish or sends them all scurrying back into the deeper water.

Benhart can be as tough as you choose to make it. The easiest way to fish it, and the method most likely to produce, is to cast a nymph into the end of the riffle and let it bounce over the shelf and into the deep water. Use a #6-#8 black Woolly Bugger or red San Juan Worm, a #14 bead-head Prince or Pheasant-tail Nymph, or a #14 Soft Hackle Pheasant Tail or Hare's Ear with a mini-split-shot. I fished Benhart this way with friends one afternoon in June 1999 and we had spectacular results.

HARRY PIERER PHOTO

DAVID DESS ILLUSTRATION



**FREE COLOR CATALOG
1-800-442-4FLY**

128 Pages Featuring Everything the Fly Fisher Could Want, Need, or Imagine

Worldwide selection of tackle, flies (great photos), materials, schools, and travel bookings. *Expert advice on all aspects of fly fishing and fly tying. We specialize in saltwater, steelhead, and trout, and foreign orders.*

Next Day Service

Catalogs outside the U.S. and Canada, \$7.00 (sent air). Send VISA, AE, or MC number and exp. date.

To request a FREE CATALOG, write, fax, e-mail, or call toll-free:

1-800-442-4359

Kaufmann's Streamborn, Inc.

P.O. Box 23032, Dept. FFM
Portland, OR 97281-3032
FAX: 503-684-7025

See Kaufmann's Catalog on-line:

<http://www.kman.com>

E-Mail: ffm@kman.com

**Seattle, WA 206-448-0601
Bellevue, WA 425-643-2246
Tigard, OR 503-639-6400**



This private hideaway near Steamboat Springs, Colorado is revered by exceptional men and women who desire an unspoiled Rocky mountain domain... a personal haven for world-class angling (rainbow, brook, brown, and cutthroat trout), abundant natural wildlife, hiking and riding, sporting clay course, sumptuous cuisine, luxurious lodging, And top-drawer service and guides.
(Children 15 or older welcome)

For immediate free information, call toll-free
(877) 878-3555

www.westernstatesoutdoors.com

The Motherwell Ranch is owned and operated by Western States Outdoors

MILESNICK SPRING CREEKS . . .

Continued from page 47

you can throw streamers at, and at times some great dry-fly fishing to caddis, *Baetis*, Tricos, and some PMDs. It fishes almost like a big spring creek, and it's on a par with the creeks once it clears up by about July 1. There's always the chance you could get a really big one, too, especially with a streamer."

The East Gallatin is much bigger water than the spring creeks, with hat-floater holes of 8 to 12 feet deep or more. The bottom is often silty clay and slippery. The water is almost always slightly turbid, even before and after runoff, which can be an advantage when you find rising fish; they're less spooky than fish in the crystal-clear spring-creek water. Fish can move freely between the East Gallatin and the spring creeks. If there is no surface activity on the East Gallatin, try bouncing weighted streamers and nymphs into the heads of the holes or swinging the flies along the undercut banks.

Access to Public Water

THE EAST GALLATIN flows through private land for almost its entire length. The Milesnicks allow free access, with their daily written permission (stop at their house), on about two miles of the East Gallatin at Dry Creek Road. The public-access water extends upstream and downstream from the road, and signs mark its boundaries. There is also a public-access area at the north end of N. 7th Avenue at the edge of Bozeman, about 15 miles upstream from the Milesnick property. You can also get on the river at its highway bridges. Ask for details at the local fly shops.

The spring creeks outside of the Milesnick property are on private land with no public access or fee fishing.

A Season of Hatches

THE MILESNICK RANCH FISHING SEASON follows the Montana trout season, which runs from the third Saturday in May through November 30. With Dave Kumlien's help, I've made the following outline of the season's significant hatches (see hatch chart). Interestingly, the spring creeks and the East Gallatin do not appear to have scuds or cressbugs.

Midges are one of the first flies on the water, but they are not often significant on either the creeks or the river. A pupa pattern can take some fish.

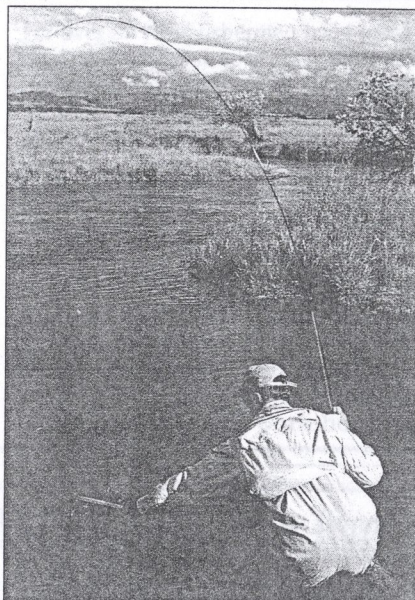
A spring Blue-winged Olive (*Baetis*) hatch comes off on the creeks and the river in May, but the river is high and muddy until runoff ends in late June or early July.

Next comes a #14-#16 olive-brown caddis hatch on both creeks and the river. Caddis hatches occur from about

early June until mid-September, and they are especially strong in late afternoon and evening.

The river has some golden stoneflies in early July, but you will not see them on the creeks.

Pale Morning Duns start hatching in late June and continue through August. The hatch usually begins around 10:30 A.M., and the spinners fall in mid- to late afternoon to evening, depending on the weather. The PMD hatch is one of the streams' most important hatches. It rivals the fall *Baetis* and the tremendous Trico hatches.



On the Milesnick spring creeks you can often fish spinners well into the afternoon, because dead spinners pile up in back-eddies and bankside pockets, then break away and float downstream.

Tricos start in late July and run through September if the weather is decent. The Trico duns come off in large numbers by about 7 A.M., and the spinner fall occurs around 10:30 A.M. Some days you can look out over the stream in the morning and see a silver ribbon of Trico spinners bouncing over the water. Fish feed on the #18-#22 Tricos hard when they fall; it's a faster cadence than you see during other hatches, making the fish easy to spot. Often you can fish spinners well into the afternoon, because dead spinners pile up in backed-dies and bankside pockets, then break away and float downstream, like little cookies for trout. The East Gallatin has a great Trico hatch, too, and its fish are easier to catch than the spring-creek fish.

The fall *Baetis* hatch starts in mid to late September and lasts into November. These insects are smaller than the spring

We Ship FREE *

versions, #18-#20 rather than the #16 in spring. The fish really get going on the fall *Baetis*, especially during overcast weather with little wind.

Terrestrials work throughout the summer, but surprisingly there aren't many grasshoppers, so hopper patterns don't work well. Beetles, however, are very effective, and a small black deer-hair beetle will take sippers that won't eat anything else. Ants also work well, but not as well as black beetles.

Streamers can be effective on all three waters. Black or olive Woolly Buggers (#8-#10 on the creeks and #4-#8 on the East Gallatin) have produced well and are especially good weapons on windy days when it is difficult to make a graceful presentation. In low-light conditions, streamers can be fished effectively without weight. Cast them across or across and downstream. Usually, however, you will need added weight to sink them to fish holding in the holes and undercut banks on Benhart and the East Gallatin. Thompson has too many weeds to fish weighted streamers or nymphs effectively.

The spring creeks hold many 10- to 15-inch trout, and a 16- to 18-incher could be the big one of the day. The streams have 18- to 20-inch and even larger fish, but few anglers catch them. And the fish are fat. An 18-inch fish can weigh 2 1/2 to 3 pounds. The East Gallatin has browns and rainbows in a wide range of sizes, and it sometimes gives up large fish over 20 inches. None of the streams have cutthroat trout.

Spring-creek anglers who use stealthy approaches and good dry-fly and nymphing techniques can catch 15 to 20 fish a day, even more during a good hatch. Anglers who use only dries will catch fewer fish. To get more cracks at good fish feeding on the surface, you must conceal your presence as you quietly walk the streambank. The fish are spooky in the clear water, but they will resume feeding if left alone or if you remain still long enough to rest them. How long it takes depends on how much food is on the water and how hungry the fish are. Also, if you put a fish down, you can make a note of its location, continue fishing upstream or downstream, and then return to that fish later with a planned approach and a new fly pattern.

I like an 8- to 9-foot, 3- or 4-weight rod on the spring creeks, with a 9-foot, 6X leader in most conditions. Longer leaders are usually too tough to handle for the short, accurate casts necessary on the creeks. These are narrow waters, and the fish are wary, especially when they're feeding on top. The best way to fish a dry fly is to locate feeding fish, then figure out how to present the fly to them without putting

Continued on page 60

SAVE 35-70%



Sierra OUTDOORS®

Save on the name brand outdoor clothing, footwear and gear you know and trust for all your outdoor adventures! Columbia, Walls, Simms, Powell, J.W. Outfitters, Duofold, Field & Stream, Costa Del Mar, Woolrich, Patagonia, Carhartt, Irish Setter, Georgia Boots, Browning, Scientific Anglers and more!

For a **FREE** catalog or to order...

Call 1-800-713-4534

Click SierraTradingPost.com/ff1

Please mention Key Code FF0202

a
SIERRA
TRADING POST
OUTLET STORE

Ultimate Source.



ANGLER'S

Workshop

The Extra Effort Company

For over 20 years fishermen have relied on Angler's Workshop as their source for quality rod building and fly tying materials. We stock over 10,000 items. See our lines of components, clothing and ready-to-fish rods and fishing accessories at www.anglersworkshop.com.

Mention this ad for special deals on **NEW** breathable RainShield™ rain wear and **FREE** credit of \$5 off shipping on orders of \$50 +.

P.O. Box 1044-FF Woodland, WA 98674

Phone: 360-225-9445 • 24 Hr. Fax:

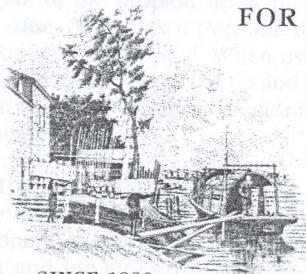
800-278-1069 or 360-225-8641

Web site: www.anglersworkshop.com

Email: info@anglersworkshop.com

CHARLES H. DEMAREST, INC.

EXCLUSIVE IMPORTERS OF QUALITY TONKIN
FOR CRAFTING FLYRODS



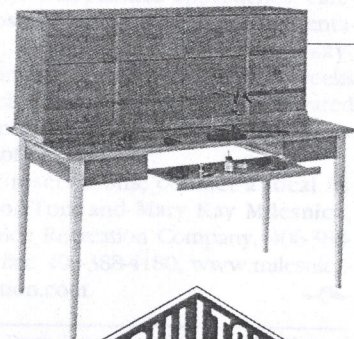
See our web-site for a complete list
of products and prices!

WEB-SITE: www.tonkincane.com

TELEPHONE: 973-492-1414

P.O. BOX 238

BLOOMINGDALE, NEW JERSEY 07403, U.S.A.



A Fly Tyer's Dream

Keep things organized and neat with this handsome birch desk and cabinet. Eight large drawers are lined on the bottom with red cedar to naturally protect your wool, fur and feathers from moths. Four small ones store hooks, thread and tools and the sliding

tray neatly tucks away when not in use.

\$799. (Shipped anywhere in continental US for additional \$149.)



184 Lower Main St., Freeport, ME. 1 mile south of L.L. Bean
Call us toll-free for more info. 888-510-6300

We Ship FREE *

* on orders over \$30.00

**The Finest in
Flyfishing Equipment**
Over 500 Rods, 500 Reels,
500 Flylines,
2400 Leaders & Tippets,
700 Hackle Pelts,
& much more

We are a brick and mortar store in
business since 1988, providing sales,
advice, and total customer service.

Call us Toll Free:
1-800-795-8118

Order our 68 page catalog
Visit our web site:
www.kkflyfisher.com



kkflyfisher.com

8643 Grant Ave, Overland Park, KS

Fax: 1-913-341-1252

E mail: sales@kkflyfisher.com

SAVE YOUR COPIES OF FLY FISHERMAN

These custom-made titled slipcases are ideal for protecting your valuable copies from damage. They're designed to hold two years' worth of issues. Constructed with reinforced board and covered with durable leatherlike material in Patriot blue; title is hot-stamped in gold.

**ITEM: FFSC Fly Fisherman
Slipcase \$14.95**
Including postage and
handling.

TO ORDER

Send check or money
order to:

**Fly Fisherman
Products**
PO Box 1539
Dept. UN6C
Fort Lee, NJ 07024-1539

Or call
1-800-358-6327

Credit card
orders only
Allow 2-3 weeks
for delivery



MILESNICK SPRING CREEKS . . .

Continued from page 59

them down. It is usually best to cast from the bank, and a downstream presentation is often the ticket to success. It's difficult to avoid lining the fish on a straight upstream presentation, and an across-stream presentation is difficult because of the narrow flow and tricky currents. Adjust your casting to deal with the wind and position the sun behind you without putting your shadow on the water.

On the East Gallatin, if there is a hatch in progress and little wind, you can use the same 3- or 4-weight rod. If there is significant wind or you plan to dredge weighted flies to fish on bottom, use a 5- or 6-weight rod.

If there is no significant hatch on any of the waters, you might find a few top-feeders on Thompson; however, your best bet under those conditions is to fish weighted nymphs or streamers on Benhart or the East Gallatin. The largest fish in both of the latter two waters usually hold with their snouts right up against a drop-off from a riffle into a deep hole.

Benhart and the East Gallatin have sharp drops from shallow riffles to deep holes. If you use just enough weight to bounce your fly along bottom in the riffle, you'll sail right over the best fish in the deeper pool. If you put on too much weight, you'll hang up in the riffle. A #14 bead-head with a mini-shot placed a foot above it is usually about right for Benhart. The same fly with at least two BB split-shot above it will work best on the East Gallatin. Place your fly barely upstream of the drop-off lip at the end of the riffle, then coax it over and down the drop-off into the pool. When using a streamer, tumble it over the lip and let it sink to the bottom before beginning a twitching retrieve.

THE MILESNICK SPRING CREEKS are like Wisconsin, Michigan, and Pennsylvania limestoners, except they have more consistent and longer-lasting hatches and mountains for a background. These small, slow, meadow streams require stealthy, well-planned approaches, careful positioning, and accurate presentations. If, as some fly fishers say, Montana's Paradise Valley spring creeks are a checkers game, then the renovated Milesnick creeks near Bozeman are a game of chess.

For reservations, contact a local fly shop or Tom and Mary Kay Milesnick, Milesnick Recreation Company, 406-388-7001, fax: 406-388-4180, www.milesnick-recreation.com.

HARRY PIPER is a former attorney, a board member of the Whirling Disease Foundation, and a freelance writer. He lives in Bozeman, Montana.

NEW RODS 2002 . . .

Continued from page 39

will be available this spring. For more information visit www.adgfish.com or call 303-344-2228.

Temple Fork Outfitters

TEMPLE FORK Outfitters has expanded its line of affordable high-performance fly rods, adding two new series of 4-piece IM6 graphite rods. The new Western Series consists of 4-, 5-, and 6-weight rods for \$140. The rods have matte black "stealth" blanks, aluminum uplocking reel seats with wood inserts, and aluminum winding checks and hook keepers. The rods are all 9-foot, fast-action rods designed for big rivers in the Rockies and Pacific Northwest. The Saltwater Series has line weights 8 through 12 for \$150-\$170 with matte black blanks, oversized guides and tip-tops, aluminum winding checks and hook keepers, full wells grips, and black anodized aluminum uplocking reel seats. Temple Fork Outfitters levies a \$25 handling charge for claims on their lifetime no-fault warranty. For more information visit www.sbm-mangrove.com or call 800-638-9052.

Dave Scadden

PONTOON WIZARD Dave Scadden has turned his attentions to designing a rod that is perfectly suited for float fishing. The IM6 Graphite III rods bearing his name retail for \$200 and are available in two models: 8 1/2-foot and 9-foot, both for 5-weight lines. He also has IM7 Graphite IV rods that sell for \$350 (2-piece) and \$400 (4- and 5-piece) in 3-, 5-, 6-, and 8-weight configurations. For more information visit www.davescaddenpontooncraft.com or call 1-888-426-4466.

Blueblood

BLUE BLOOD HAS ADDED another model to their Sylvester Nemes (the soft-hackle guru) line of rods. The 9-foot, 4-weight, 3-piece rod comes with a down-locking German silver screw-lock reel seat with an engraved end cap and mortised maple burl wood or a cork spacer and sells for \$625. For more information visit www.blueblood-rod.com/.

Quarrow

THE OKLAHOMA-BASED rod company has expanded its line of travel rods in both its ML1 (medium action) and ML2 (medium-fast action) rod series. Prices range from \$130 to \$160 in the ML1 series and from \$190 to \$220 in the ML2 series. For more information call 888-568-5026 or visit www.quarrow.com.

Rogue

ROGUE HAS ADDED two new models to its existing rod series. New to the Riffle series of 3-piece rods is a 10-foot, 6-weight mod-

**NEW
RODS
2002**

EXPERTS CHOOSE THE TOP 5 VISES

FLY FISHERMAN

www.flyfisherman.com

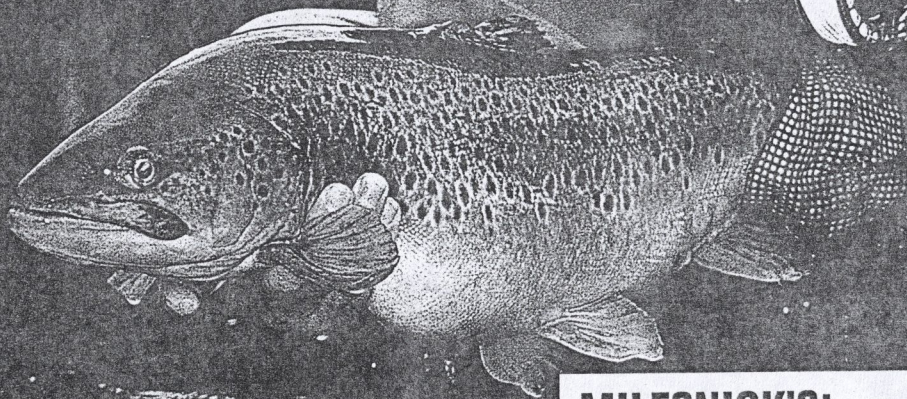
February 2002

The Leading Magazine

The Quiet Sport

**5 DEADLY
Crane
Flies**

**TYING & FISHING
KILLER
LEECHES**



**PYRAMID LAKE
LAHONTANS**

**MILESNICK'S:
THE REBORN
SPRING
CREEKS**

VOLUME 33 • NO. 2
\$4.99 U.S. • \$5.99 CANADA



RETAILER: DISPLAY UNTIL FEBRUARY 5

NEW YEAR'S ON CHRISTMAS ISLAND • ALASKAN SILVER SALMON

Fly Rod & Reel

THE MAGAZINE

OF AMERICAN FLY FISHING

JANUARY/FEBRUARY 2002

www.flyrodreel.com

*"Fishing
is good for
the Soul."*

—FR&R Angler of the Year

Ted Turner

Plus . . .
**Our 2002 Annual Awards
for Fine Tackle**

\$4.99/\$5.99 CANADA



DISPLAY UNTIL JANUARY 28

ANGLER OF THE YEAR 2002 Ted Turner

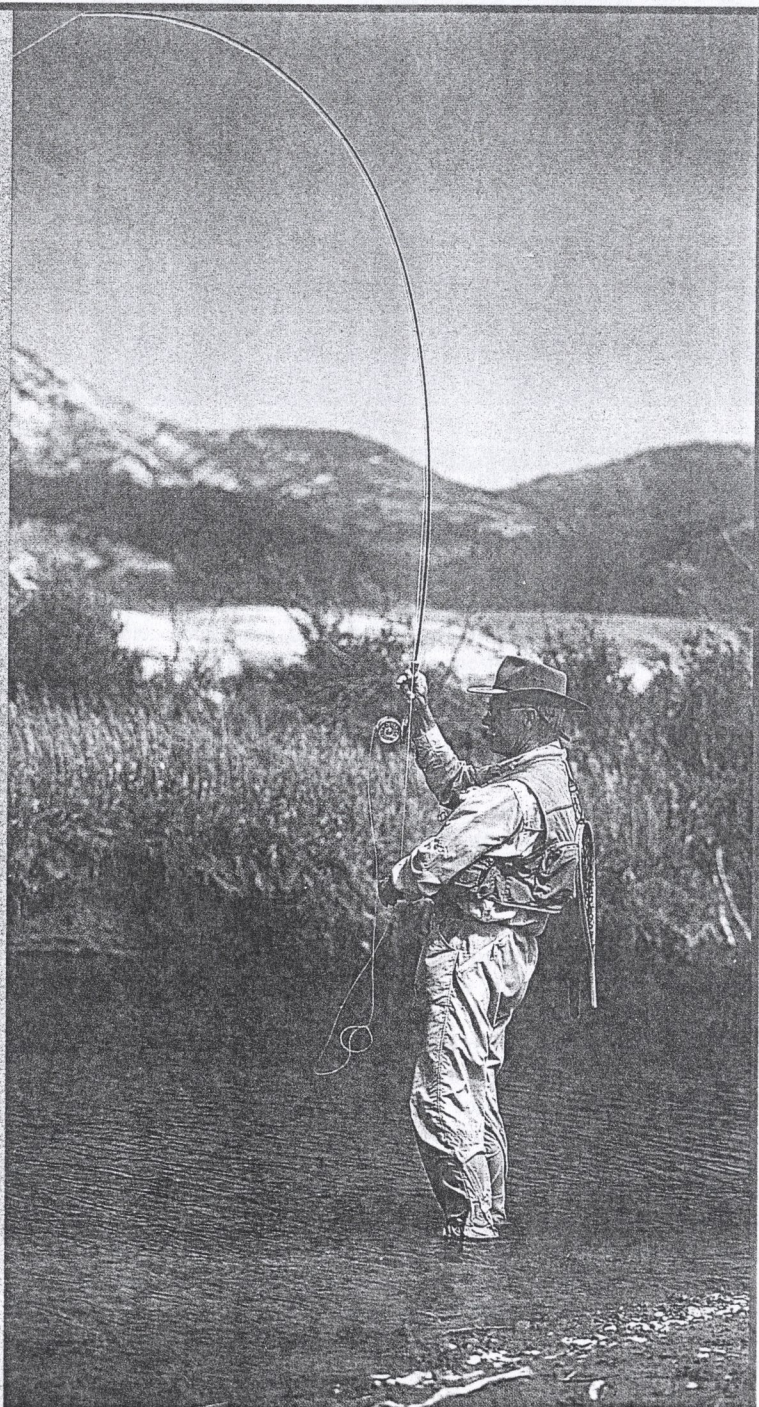
DONOVAN WEBSTER
PHOTOGRAPHS BY DENVER BRYAN
www.denverbryan.com

Make no mistake, Ted Turner is thrilled with the award. "I've been *Time* Magazine's 'Man of the Year,'" he says, "I've been 'This of the Year' and 'That of the Year,' but I've never been 'Angler of the Year' before," he says, laughing. "Fly fisherman of the year. Now that's something."

When I catch up with Turner, he's just spent the morning fly-fishing his Snowcrest Ranch—nearly 12,000 acres in southwest Montana—and he's in a fine mood. At Snowcrest, where a handful of mountain headwaters tumble into the rich green of a grazing valley, Turner and his organization, Turner Enterprises, have tweaked the already spectacular landscape to its environmental optimum.

They have sold off the cattle that once occupied Snowcrest's pastures, replacing them with cow and calf bison, which are as profitable as cattle per livestock head but, in a nice side benefit for trout, prefer to eat pasture grasses over streamside vegetation. They then restored Snowcrest's bovine-battered creeks, stabilizing their banks and adding wing dams and boulder diversions to get them running smoothly and with less silt. With the water healthy, Team Turner nurtured vegetation so that streamside grasses and willows could harbor more insect and animal life while also shading the water. And, finally, they fenced riparian areas to prevent wayward livestock from wallowing in the rejuvenated waterways.

All across the Snowcrest valley, the land literally glows with health. Yet Snowcrest is only a single swatch in Ted Turner's sweeping and sometimes controversial patchwork quilt: a blanket cov-



ering more than 1.7 million Turner-owned acres in North and South America. Across this enormous reach of land—encompassing more than 2,700 square miles—Turner and his team are working to improve the planet's health by example. Acre by acre, stream by stream, they're restoring ecosystems and habitats, repairing environmental damage and swearing off pesticides. They've removed hundreds of miles of fence to broaden migratory and mating ranges for wild animals, have assisted ailing fish and animal populations and in some places are working to reintroduce endangered (or imperiled) species like red-cockaded woodpeckers, black-tailed prairie dogs, California condors and desert bighorn sheep. It's a gigantic, expensive and wide-reaching plan; one intended to let environmental fitness radiate outward from Turner holdings to the surrounding lands—both public and private.

Of course all this burnishing has, among other things, also made for some spectacular trout fishing. "I got about 20 fish this morning, though I've stopped keeping exact counts," Turner says, a satisfied smile in his voice. "I'll be going out again after lunch."

Billionaire. America's Cup champion. Founder of the world's first TV Superstation—not to mention CNN and four other satellite/cable networks. Creator of the Goodwill Games. Philanthropist and billion-dollar benefactor to the United Nations. Father of five. Owner of the Atlanta Braves and Atlanta Hawks. Environmentalist. Vice-chairman of AOL/Time-Warner. When you stop to consider Ted Turner's accomplishments, the mantle of devoted fly fisherman likely doesn't crack the Top 10. But since he retired from competitive sailing and picked up a fly rod in his late forties, fishing has become a regular part of Ted Turner's life; he wets a line roughly 100 days a year, which ranks him among the most avid non-professional fly-fishers around.

Turner half-jokes that, since being relieved of control over Turner Broadcasting last year in an AOL/Time-Warner reorganization and splitting with his third wife, Jane Fonda, his schedule has loosened up, allowing him even more time to fish. "I've been going through a pretty hard transition the last couple of years," he says. "Breaking up with my wife and losing my job. So, you know, all this fishing has been good for my soul."

Still, it's not the frequency of his fishing that's earned Turner this year's award, but his environmental commitment and leadership. For Ted Turner, outdoor sport and the appreciation of nature have always gone hand in glove. He talks lovingly of watching the movement of ocean waves back when he was sailing. He describes in precise and fascinated detail the way creek channels braid to create all manner of habitat for aquatic life. He recalls how, as a boy, he used to ride his bicy-



The Ted Turner Workout involves roughly 100 days per year on the water.

cle to the zoo and spend the afternoons alone, watching animals and their behaviors. Inside Ted Turner's psyche, sport and planetary health are meshed, resulting in an environmentalist/outdoorsman of the Old School who, in the manner of Teddy Roosevelt or Aldo Leopold, is dedicated to preserving the earth so those after him can enjoy it as he has.

"I love this planet," he says. "And I love the human race, too. And it really breaks my heart to see human beings disregarding the environment—recklessly, carelessly."

While this concern for the earth's health has always resided inside Turner, in the 1980s he began to make real, material commitments to it. Since then, he has been buying ecologically significant properties and returning them to prime environmental health. While this program has made him America's largest private landowner (outpacing even The Nature Conservancy's 1.3 million acres in North America), it has also placed him at the forefront of the latest line of environmentalist philosophy. Instead of concentrating on narrow and specific fixes to specific environments—ridding a single pollutant from the air or water, for example—Turner and his team promote biological diversity across entire ecosystems, while also working to reweave them to large tracts of public and private lands beyond. This way, the species-threatening effects of inbreeding, disease or habitat destruction can be slowed and even reversed to preserve a tapestry of life that

includes everything from butterflies to gray wolves.

"All we're doing," he says, "is helping ecosystems on my lands to be as natural as possible. We're trying to replace as many missing pieces to the environment as we can: plants or animals now gone because of over-hunting or habitat destruction or whatever. We're trying to save what we can of the natural world. We don't kill rattlesnakes. We've reintroduced prairie dogs. I ranch bison because they were native originally."

Over the past decade, this welter of Turner-directed environmental initiatives—which costs him millions annually—has rivaled anything done by public conservation groups like Trout Unlimited or The National Audubon Society (both of which Turner's family foundation also assists with donations). To help with this undertaking, Turner has also assembled a top-flight team of qualified managers and scientists, all of whom steadfastly support his vision and its broad—and occasionally provocative—applications.

Supervising the 14 ranches in New Mexico, Montana, South Dakota, Colorado and Nebraska is Russell Miller, who continues to seek out still more new properties while also keeping land-reclamation projects compatible with Turner's bison business. Coordinating biological programs is Mike Phillips, who joined the Turner team in 1997 after an 11-year career with the US Fish and Wildlife Service, during which he masterfully managed wolf reintroductions in North Carolina and Yellowstone National Park. On board as well is Turner's third and youngest son, Beau, a trained wildlife biologist who manages Turner Enterprises properties in the eastern US and South America, runs an outfitting and trophy-hunting business on the ranches to keep them profitable and, with Phillips, presides over the Turner Endangered Species Fund which reintroduces endangered or imperiled animals on Turner lands. And, finally, there's the aquatic biologist Carter Kruiise, who looks after the health of Turner Country's creeks and rivers.

The team pushes forward with dozens of different programs at any one time. In New Mexico, they're making small aquatic

biology upgrades to assist the endangered chricama leopard frog. In South Dakota, they're continuing with black-footed ferret reintroductions. In Montana—to the tune of nearly \$140,000 a year—they're eradicating invasive weeds and plants that drive out the better-grazing native grasses. In Florida and Arizona, after a 20-percent loss in honeybees was reported in the early 1990s, new bee populations are being nurtured by a pair of Turner initiatives.

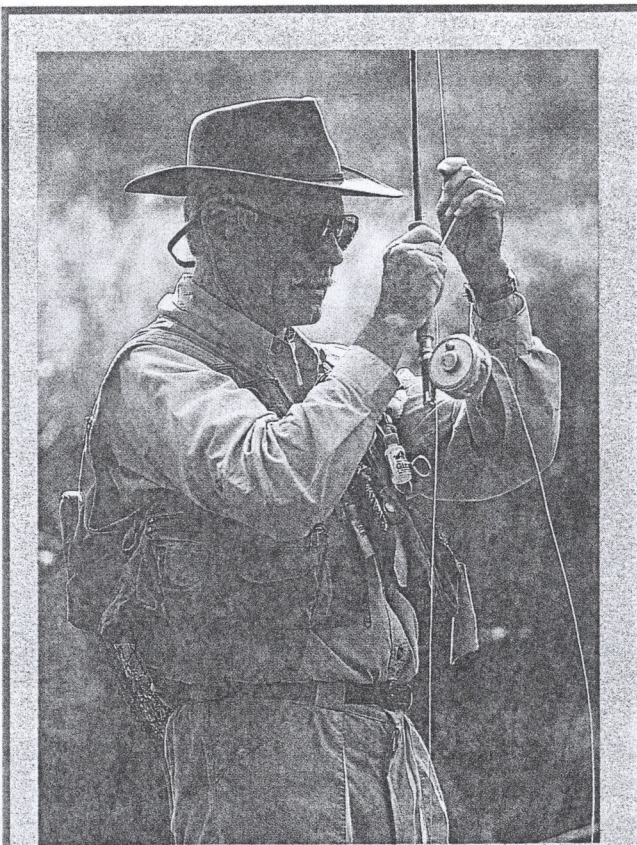
"I tell you what surprises me about Mr. Turner," says aquatic biologist Carter Kruiise. "For a guy with so many eggs in so many baskets, he can still telephone me and say, 'Two months ago, you said this tree was going to get planted down at that bend in this creek. . . . Did it happen?' And I have to think back for a minute before I can answer yes. He's that much involved. Frankly, that involvement has turned him into one hell of a biologist."

Turner also recognizes that not everyone can do what he and his organizations can. But he also reminds—with the zeal of an evangelist—that in smaller ways everyone can do more to boost planetary health. "I was in Washington, DC the other day," he says, "and I saw that people had been just throwing garbage out of their cars. So I cleaned it up. I was out there on the sidewalk, picking up other people's garbage and putting it in the can where it belongs. It wasn't my garbage, but it needed to be cleaned up. So when I'm talking about

environmentalism, I'm talking about that, too. Not everyone can do the things I'm doing with the streams and animals on my property, but we can all do more."

Of course, there are those who believe Ted Turner and his organization are doing a bit too much to help the environment—and doing it too quickly.

This is especially true when it comes to trout and the riparian ecosystems they inhabit. And ground zero for this difference of opinion sits about 90 minutes from the Snowcrest Ranch on another Turner property, the 113,000-acre Flying D Ranch southwest of Bozeman. The Flying D's main watershed, Cherry Creek, is a 77-mile drainage that begins on public land at tiny



The quiet but ardent environmentalist also happens to be America's largest private landowner, an encouraging combination that certain special interest groups finds vexing.

Cherry Lake, then crosses Turner's property, taking in feeder streams as it goes and ending with a waterfall before joining the Madison River. When Ted Turner purchased the property in 1989, his portion of Cherry Creek was in terrible shape. Grazing cattle had collapsed its banks and turned the streambed to mire. It was so silty, in fact, that in summer it no longer joined the Madison at all, drying up four miles from the confluence.

For several years after the purchase, the Turner Enterprises team worked "on almost every foot" of Cherry Creek that crossed their property, according to Beau Turner. And today, like watersheds on the other Turner properties, Cherry Creek is a marvel of fish and wildlife habitat. You can see where boulders have been added to soften and redirect channel flows, where the last remnants of biodegradable jute netting have been laid down to keep banks from crumbling (letting stabilizing grasses grow through, further securing the soil) and where willows and alders have been planted for shade and insect and animal habitat.

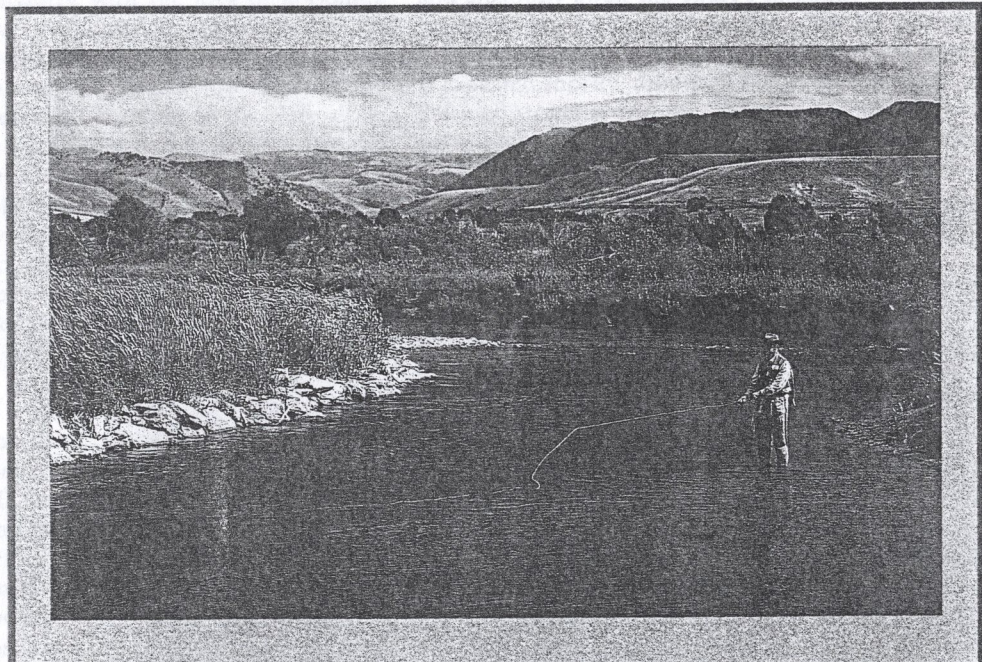
Because of the 25-foot waterfall at the stream's lower reaches, no fish existed in Cherry Creek until about a century ago, when stocking began for what ultimately became four species of trout: rainbows, browns, brookies and cutthroats. Today, the descendants of those introduced fish are healthy and plentiful, though stunted due to genetic introgression. These Cherry Creek fish—along with Turner and his team—have recently found themselves at the center of a small public relations whirlwind.

Because Cherry Creek was rehabilitated to such prime habitat, in 1995 the State of Montana came to the Turner organization with a proposal: Might the creek be used as a reintroduction site for imperiled westslope cutthroat trout, which now only occupy two percent of their former range and have been petitioned for the endangered species list, though they have yet to be officially added? Montana's Department of Fish, Wildlife and Parks had drafted a plan for recovery of the westslope cutts: 10 distinct populations would be reintroduced to five different river drainages, each of whose minimum length would be 50 miles. Unfortunately, in order to restore the fish, the creek's other trout inhabitants needed to be either removed or poisoned out (a practice successfully used by both the National Park Service and several states in advance of new wild trout introductions).

Not wanting to risk disrupting a delicate ecosystem just regaining its lugs, Turner Enterprises at first declined to help.

(In fact, they were mainly concerned with protecting the creek's reconstituted banks and vegetation.) Then in 1997, following the creation of the Turner Endangered Species Fund, Ted Turner, Mike Phillips and Beau Turner met with state officials to reconsider the idea of a westslope cutthroat reintroduction on Cherry Creek. Once Turner and his team became convinced the plan was a completely safe one, they even offered to pay \$343,000 of the project's roughly \$475,000 costs.

However, the prospect of trout-poisoning on Cherry Creek



'... it really breaks my heart to see human beings disregarding the environment—recklessly, carelessly.'

spawned a small but vocal band of Flying D neighbors who began to publicly disagree with the idea, aiming most of their criticism at Turner and his organization rather than the plan's initiator, Montana's Department of Fish, Wildlife and Parks. Since then, the op-ed page of the *Bozeman Daily Chronicle* has become a soapbox for anyone objecting to poisoning the fish. In addition, with the help of the Montana Mining Association, the Flying D neighbors (calling themselves Friends of the Cherry Creek Cutthroat and the Public Lands Access Association) have brought lawsuits against the project, stalling it in the courts for the past two years. (For an in-depth look at the poisoning issue, see Ted Williams' Conservation column "Fish-Poison Politics" in *FR&R's* March, 2001 issue.)

"What it comes down to is this," says William Fairhurst, the primary initiator of the lawsuit. "Why do they pick out this lake and stream and poison the fish—and the very ecology—only to reintroduce a new species of trout? It doesn't make any sense to me."

Fairhurst, a native of Montana and a 71-year-old retired airline pilot, recalls being a younger man and fishing Cherry Lake. "The fish there are just great," he says. "They're Yellowstone Cutthroats and they're hearty and just beautiful. They survive just fine in a difficult and demanding environment. Cherry Lake freezes hard all winter and these fish come through fine. So I don't see why we have to destroy this beautiful fish, a species that's meeting the recreational needs of the people, in order to bring in new fish."

The difference of opinion goes deeper. Fairhurst and his supporting groups also disagree with the idea of poisoning Cherry Lake and Cherry Creek, period. "No one can say exactly how deeply this well-established fishery is going to be destroyed," he says. "No one can predict how much of the creek's aquatic life will be killed. It might all die. Life along that creek might have to start all over. And why? So we can add new trout? I don't see the point."

While Ted Turner declines to go deeply into the Cherry Creek dustup—referring me to Mike Phillips and his son, Beau—he also reminds me that westslope cutthroats now inhabit only a tiny portion of their former range. "So, I just want to try and help that fish. We won't be deterred by the problems in helping that fish. We'll work through those, no matter how long that takes. If I die before it's done, my son Beau will carry on. That's how committed we are."

Biologist Mike Phillips has a stronger take, calling the Turner Endangered Species Fund's position on Cherry Creek "Granitic. . . . We're supporting this project for the long term. Though I should also add that we're pleased to live in a country where, if someone doesn't like what an otherwise well-received program proposes, they can have their concerns addressed. Still, we haven't shifted our position or our plans for Cherry Creek and the westslope cutthroat reintroduction one bit."

Even with the lawsuits in Montana, plans for reintroductions of other endangered or imperiled wild fish continue on additional Turner lands. On three different ranches in New Mexico, the Endangered Species Fund is making plans to reintroduce Rio Grande chubs, Rio Grande suckers and Rio Grande cutthroats into a trio of different waterways (with the assistance of that state's Department of Game and Fish).

Says Beau Turner of the larger fish-reintroduction programs and the bumps encountered so far: "We haven't shifted our

position for a minute. We're being patient. We're doing this the right way. After all, this isn't about lawsuits, it's about keeping the genetic integrity of imperiled and heavily stressed species of wild fish. That's important work. Because each time we lose a fish's specific genetics, it's gone for good, and we're short one more tile in the mosaic of life on earth. Once it's gone, we can never get it back."

For their part, William Fairhurst, the Montana Mining Association and the Friends of the Cherry Creek Cutthroat also recognize the commitment of the Turner organization and anxiously await the court's findings. "We don't have the resources to fight Ted Turner and his group forever," Fairhurst says. "But we wanted to be heard." A court rendering is expected shortly, though if the judgement goes against the State of Montana and the Turner Endangered Species Fund, no one should expect litigation to end anytime soon.


In the meantime, Ted Turner and his organization continue



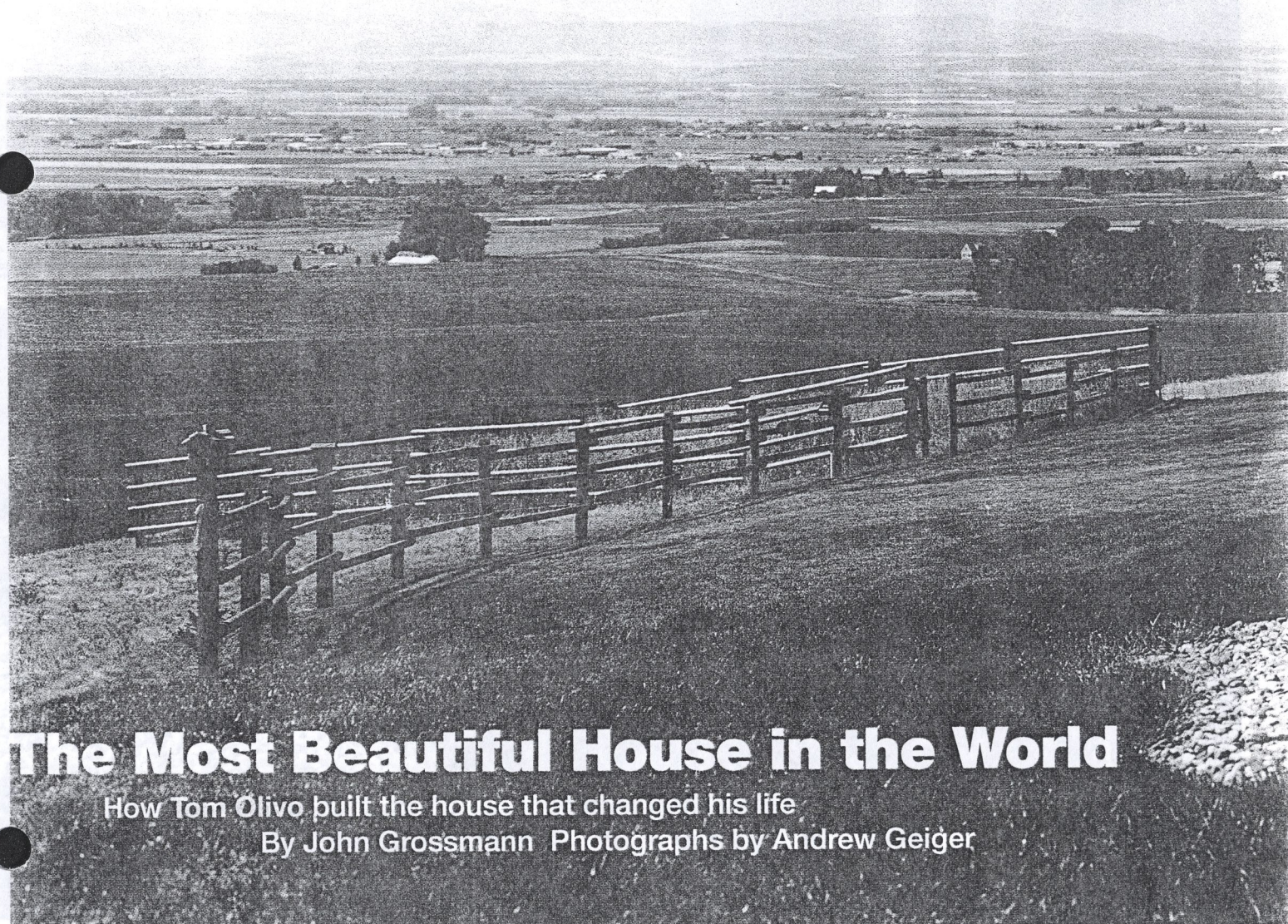
Says aquatic biologist Carter Kruse of his employer's hands-on-approach: 'He's that involved. Frankly, [his] involvement has turned him into one hell of a biologist.'

pushing on, taking leadership positions on the environment and under the auspices of the Turner Endangered Species Fund working to protect endangered fish and wildlife across a broad swatch of North and South America's lands, waters and riparian environments. For this leadership position alone—not to mention that the man fishes more regularly than almost anyone we know—we are pleased to name Ted Turner as *Fly Rod & Rec.* Magazine's "Angler of the Year" for 2002.

Donovan Webster is at work on a book called The Burma Road. This is his first piece for FR&R.



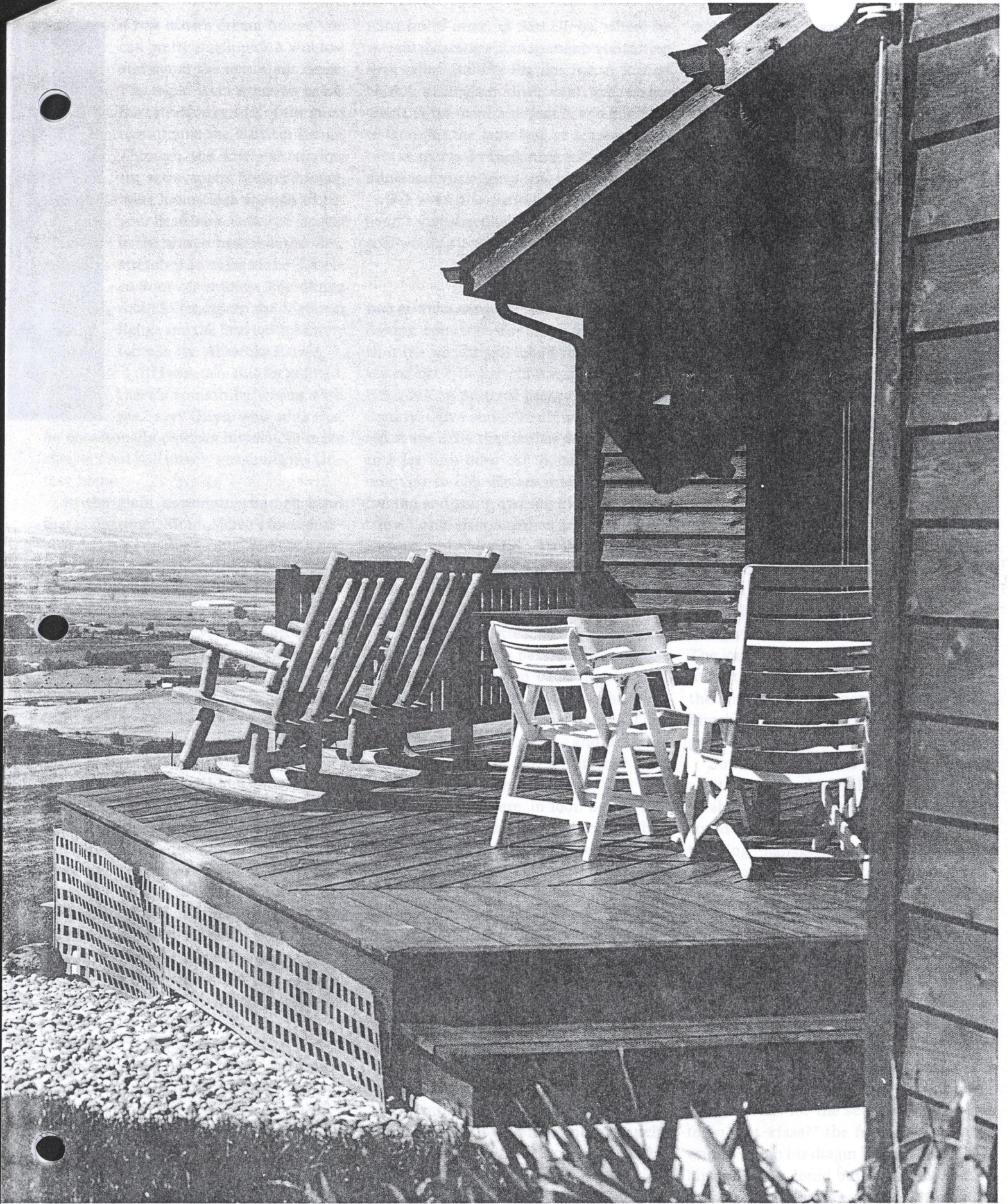
FIT 56
IT COULDN'T BE HELPED 58
THE RECOVERING CEO 60
NIGHT SHIFT 60
ROAD TRIP 62
GEAR 64



The Most Beautiful House in the World

How Tom Olivo built the house that changed his life

By John Grossmann Photographs by Andrew Geiger



Even more noteworthy, he did so from... The first was the birth of Tom Olivo's... home, he would build a primary residence...

N TOM OLIVO'S dream house you can pretty much pick a window and name the mountain range. The triple-level windows below the cathedral ceiling of the great room frame the Gallatin Range. Through the kitchen window the snowcapped Bridger Mountains loom close enough to tilt your head back. From the Jacuzzi in the master bedroom the view stretches 40 miles to the Tobacco Root Mountains. The dining room looks out on the Madison Range and the Beartooth Mountains in the Absaroka Range.

"If I ever take this for granted, there's something wrong with me," says Olivo, who adds that he occasionally pinches himself to make sure he's not still merely imagining his fantasy home.

In the giant mountain-rimmed bowl that is Bozeman, Mont., Olivo's four-year-old house sits on five foothill acres at 5,000 feet above sea level, partway up the eastern side of the bowl. Olivo looks down on propeller planes circling to land at a private airstrip and marvels at approaching storms that sweep in over the Continental Divide, convulsing the sky. A neighboring rancher's wheat spreads like a giant comforter over the land, just 200 feet from his bedroom. But even better than the views is what lured Olivo to the area: the trout fishing down in the valley. Abundantly blessed with spring-fed creeks and snowmelt-coursing streams and rivers, Bozeman is arguably the fly-fishing capital of America. By the end of August, Olivo had already stepped into his waders some 35 times for the year. He's not retired—just determined enough and shrewd enough to hook himself nearly every entrepreneur's fantasy—raising his children and living the good life year-round in a picture-postcard setting far from the bidding crowd.

The 44-year-old Olivo built his 5,300-square-foot home on time and on budget. Even more noteworthy, he did so from

1,204 miles away, in San Diego, where he was establishing a management-consulting firm called Success Profiles Inc. A former NCAA champion diver and top diving coach, Olivo moved his family and business to Montana the same way he achieved success in sports: by beginning with the end in mind and visualizing how to get there.

But even the forward-planning Olivo hadn't visualized all the ways his original goal would alter his life.

THAT PARTICULAR GOAL—a house in prime fly-fishing country—first entered his mind after his wedding in 1989 but really can be traced back to his childhood in Bedford Hills, N.Y., a pastoral part of Westchester County. Olivo shouldered his first fishing rod at age 4. By the time he was 8, his parents let him head off alone to a nearby reservoir to fish. He loved the freedom of coming and going and the pleasure of one "final" cast after another as the sun set. He was hooked for life. But it was when he and his wife, Katie, a lover of the outdoors, honeymooned in New Zealand, a fly-fishing mecca that boasts many of the planet's most prized trout streams, that Olivo realized the depth of his passion for angling.

The Olivos' notion back then was to build a getaway place, a vacation home in the mountains, close to great fishing. They considered Flagstaff, Ariz., and Boulder,

Colo., but fell in love with Bozeman on their first visit there, in 1991. Before flying back to California, they purchased the five-acre site of their future home. During that same visit, Olivo drew a floor plan of their dream home on a piece of graph paper. The final design of the home is virtually identical to that original sketch, right down to the old recycled beams the

Olivos bought from a local company called Big Timberworks.

While the Olivos didn't change the original design of their home by much, their designs on their home would be greatly altered. The reason? The way that two births affected their lives.

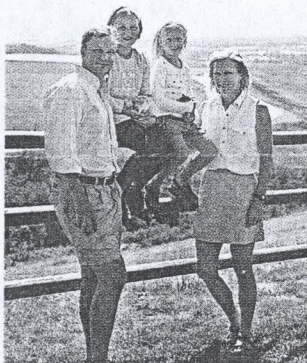
The first was the birth of Tom Olivo's

company, which grew out of his job as a personal financial planner at the Equitable. When a number of clients started asking him to help them with their businesses, Olivo discovered he enjoyed that work much more than his day job. Each client company had its own dynamics and problems, and he found those puzzles infinitely more challenging than estate planning. So in late 1990, while still with the Equitable, he launched Success Profiles and spent the first couple of years identifying key business-performance diagnostic measures and learning how to assess them. Then in 1992 his first daughter, Sarah, was born. Thinking back to his own childhood, Olivo couldn't help wishing that his daughter might experience the kinds of outdoor adventures and the freedom he'd enjoyed, for he knew only too well the shortcomings of their home in highway-jumbled Southern California.

San Diego's metro population had swelled by some 800,000 in the 13 years the Olivos had lived there. On some days Tom Olivo could just about run the five miles to work faster than he could get there by car. Drive-by shootings occurred frighteningly close to his family's neighborhood. The local airport was impossible. "There's more to quality of life in San Diego than the ambient air temperature," Olivo told himself and others, as the urge to relocate grew stronger.

Southern California was not where he wanted to raise his children. Yes, his Equitable customers were there. But if he could replace that income stream with a thriving management-consulting business that had clients nationwide or internationally, he should be able to live wherever he pleased. And Bozeman pleased him plenty—equipped as it was with its unhurried, refreshingly low-key airport served by several airlines. Still, the leap was huge, entailing the kind of personal upheaval that even risk-taking entrepreneurs can find difficult.

The still-echoing words of a friend helped him take the plunge. "Tom, are you going to wait for the second time around to go first-class?" the friend asked. Why wait to live in his dream home, Olivo asked himself, if he could build it soon? So the goal became clear: instead of a vacation home, he would build a primary residence



Olivo, wife Katie, and daughters Sarah (left) and Christine



in Bozeman and move in by September 1997, in time for Sarah to start kindergarten.

OLIVO IS a self-taught businessman, instructed primarily by his experiences in sports. He's writing a book tentatively titled *Everything Important I Learned About Business I Learned From Fly-Fishing*, which purports that successful fishermen and successful CEOs share analytical and problem-solving skills. "The goal is not to have the nicest tackle box. The goal is to catch the most fish and have fun. In business, it's to generate cash and increase share-

holder value," he says. Apart from innate physical talent, what drove Olivo's collegiate career as a two-time All-American diver at SUNY Cortland was his ability to mentally rehearse each dive and picture himself entering the water straight as a plumb line, with barely a splash.

"I would go to the pool 20 minutes before anyone else, go down to the underwater windows, and visualize my entire workout, dive by dive," he says. "I learned as an athlete that what you do today in your workout is what's going to help you get to where you want to be."

For Olivo, getting to Bozeman meant

squirreling away enough money to build a first-class home. He and Katie decided to live frugally on her salary as a cardiovascular technician and bank the early income generated by the first paying customers of Success Profiles. (Old habits die hard: Olivo still drives a '92 Pathfinder.) Then came the interviewing of builders (three) and the typically unpleasant task of overseeing the builder who oversees the various subcontractors. (You've heard the horror stories.) The builder the Olivos chose, Jim Syth of Bridger Builders Inc., was booked two years out, but because the couple was planning so far in advance, that worked out fine. So did the entire home-building process, which Tom Olivo terms "a wonderful experience," employing an adjective seldom used by couples building a home.

How did he manage to successfully build his house? The obvious metaphor is unavoidable: he dove into the project with enthusiasm and with the meticulous planning that characterized his success off the three-meter springboard. It's not by chance that he can gaze out his dining-room windows or from the upstairs loft and look directly down into a wildlife-filled hollow. To properly place the house's foundation on his property, Olivo stood on a ladder and approximated the ravine view that has since

rewarded him with sightings of deer, ring-necked pheasant, porcupines, foxes, turkeys, even a bear. So he could show his family their future home, Olivo spent 49 and a half hours ("What can I say? I'm a measurement guy") constructing a scale model out of balsa wood and Styrofoam. Later, when decisions had to be made about integrating the beam-framed ceiling of the great room with the more traditional construction of the kitchen, the model

proved invaluable to Olivo in talking through the solution with Syth.

"Tom and I talked by phone a minimum of two to three times a week and faxed things back and forth," recalls the builder. "He's so into computers, he could be talking to me looking at a Webcam picture of Main Street in Bozeman and remark about how sunny it was," Syth says, laughing. "There was no way I could tell

...And the Most Beautiful Business?

In the stairway leading up to his office over the garage, Tom Olivo has hung a photograph of a lone fly fisherman standing calf-deep in a picturesque trout creek. He is that fisherman.

The same image appears in a glossy brochure advertising a 232-acre real estate development near Bozeman called **Baker Springs**. Olivo is a moonlighting minority partner in the project, which is being developed by a local company called the Cold Water Group. Dream home accomplished, Olivo believes he has now hooked a dream business, one that combines his passion for fly-fishing with a rewarding economic opportunity.

"It's my observation," says Olivo, "that everyone who visits Montana wants to somehow have a piece of it." Within Baker Springs, that piece won't come cheaply. Only 11 acre lots will be sold in this ultra-exclusive private fly-fishing community, at prices averaging around half a million dollars per lot. The attraction? Mountain views on all sides. A 10-minute drive to the airport. World-class fishing almost within casting range of your doorstep in four manmade ponds (some of them stocked), the West Gallatin River, Trout Creek, and most notably, Baker Creek, one of Montana's legendary spring creeks, which the developers have brought back from near death. Decades of hard grazing by generations of cattle had badly degraded the creek, fouling its waters, breaking down its trout-friendly undercut banks, and burying its gravel-bed spawning habitat. Olivo helped secure the money to buy the Baker Springs property and fund the initial round of more than \$1 million worth of ecological restoration and pond development. As an added lure to avid anglers, the developers restored a farmhouse that was on the land and installed Bud Lilly as riverkeeper and resident legend. Chatting stream-side with Lilly, a renowned former Yellowstone guide and tackle-shop owner who pulled trout from Baker Creek as a schoolboy in the 1930s, may be the equivalent of taking bathing practice while Ted Williams banters with you.

The Cold Water Group, Olivo explains, expects to close on an adjacent 300 acres and acquires another 400-acre Montana property. "All will have the same theme: restoration, conservation, and recreation," he says, stressing what appeals to him personally about the business model. "Not only is it good for the people who live there, but the entire fishery [beyond the property] will be improved because these spring creeks are important trout nurseries."



J. G.

him we couldn't pour concrete because it was raining."

Olivo proved a model client. The builder says Olivo taught him a few things about how to rein in a construction budget when necessary. By negotiating contractor by contractor, Olivo was able to trim \$30,000 from the total budget, saving, for instance, 5% on excavation, 37% on painting, and 11% on windows, by purchasing early.

The home includes a 900-square-foot office atop a three-car garage. The office features a kitchenette, a full bath and guest room, and a conference table, making it perfect for client retreats. When he's not on the road meeting with customers (typically he travels about eight days a month), Olivo generally works in his office, communicating with his handful of in-town employees by phone and E-mail. He's usually up by 5 a.m. and at his desk by 5:30. Most days, he'll work until 2, then head to the gym or out for a run, possibly in the mountains behind his home. The last four years he has run the 20-mile Bridger Ridge Run in the Bridger Mountains. If he doesn't opt to get in a little fishing, he'll work a couple more hours in the late afternoon, then knock off for the day when his daughters (his second daughter, Christine, was born in 1995) come home from school. At about 50 hours, his current typical workweek is significantly shorter than his workweek from his California days.

"It's all about balance," Olivo says, explaining that because he experienced overuse injuries as an athlete, he has become sensitive to how overworking could injure his private life. Work "was affecting my sleep, my patience with my wife. But I've learned how to pace myself in business," he says.

Since building his dream home, Olivo has settled into what he likes to describe as the Bozeman plan. Nowadays when he needs a break, he can simply hop into his car, where a ready-to-cast fly rod usually parts the front seats, its tip held fast beneath the passenger-side visor. Within 10 minutes he can be standing in clear, fast-running Montana water, casting and stripping line, thigh-deep in the kind of trout stream that fly-fishing aficionados plan vacations around.

John Grossmann (grossmannj@aol.com) is a freelance writer living in Mountain Lakes, N.J.

PRESHRUNK

The six-month psychic checkup: you get your teeth examined twice a year. What about your head?

Maybe you think you're in pretty good shape. You exercise, eat sensibly, pay attention when your body starts sending out warning signals, and see your doctor once a year or so—any two of which would place you in an elite minority. But you may still be overlooking a most critical element of your overall well-being. What about your head? And we're not talking about the gray hair, pal. If you paid as much attention to your emotional and psychic health as you did (or should) your physical condition, chances are you'd be a happier human being—



and a more effective manager, too.

The good news is that there are now legions of business and management psychologists who specialize in caring for the harried, frazzled, go-go CEOs of growth companies. Whatever moniker they choose—therapist, business psychologist, executive coach—their job is to sit across from you and hold up a mirror that compels you to examine yourself, warts and all. "It's a way to get a reality check from someone who's objective," says Gene Morrissy, a management psychologist with RHR International Co., in Wood Dale, Ill., which has been in the corporate-psychology business for more than 50 years. "If we see them going off the trolley, we're pretty good at getting them back on track." The key here is not to wait until you're off your trolley; checking in with a professional like Morrissy every so often as a preventive measure makes every bit as much sense as having a physical. "Being a CEO can be very isolating," says Morrissy. "They're moving at warp speed, and they often have no one to bounce things off of."

Typically, Morrissy first asks CEOs to talk about how they're functioning in their jobs and to assess their level of stress. And what if the interviewee claims to be handling stress just fine? "I'm still waiting for the day when that happens," Morrissy shoots back. He might then probe gently for information about the person's relationships both within and outside the company. (Sample question: "If you were a fly on the wall, and I was sitting with your spouse, what would he or she say about you?") "We want to know if there's been a decrease or change in performance or in the quality of relationships at work or in their personal life," he says. After identifying trouble spots, he'll usually work out a plan of action with the client.

Michael B. Fineberg, a business psychologist and managing partner at Delta Consultants, in Philadelphia, says that at least half of the folks who come to him ask for a proactive diagnostic. "They say, 'Take a look at me in terms of my current practices and my psyche and tell me where I can develop and improve.'" For instance, he works with one CEO who "has a codependent relationship with detail. I helped him understand that details were his comfort zone, even though he couldn't stand being that way." Ultimately, the fellow became less fastidious and resolved to hire others to do the tasks he loathed but couldn't seem to let go of.

The price for all this? Fineberg's fee is \$300 an hour. Full-blown programs (tests, evaluation, feedback, a course of visits) can run as much as \$5,000 to \$10,000 at companies such as Fineberg's and RHR.

Fineberg says that what he does is a bit like personal training. "You train your emotional intelligence," he says. "You keep your body and your muscles toned, and you need to do the same with how you think and feel. It's a stimulating process." Of course, maybe you think you're stimulated enough already, or maybe you believe you don't have "issues" that need hashing out. Fineberg thinks otherwise. "If [top managers] aren't worried about issues, then they're probably not doing their jobs," he says.

Donna Fenn



Illustration by Geoffrey Grahn

Information for Board Meeting April 13, 2002

Location: GranTree Inn
1325 North 7th Avenue
Bozeman, MT 59715
587-5261

Willow Room (on the second floor)

Time: 10 a.m. – 5 p.m.
Lunch will be on your own.
Refreshments and snacks will be provided in the conference room.

For your convenience I have three-hole punched the items in the folder so you can put them in your Whirling Disease Foundation Board Member binder.

In the folder you will find the following:

Proxy Form

(if you do not plan on attending the meeting, please fill out the proxy, fax it to 406-585-0863, and send the original to WDF, PO Box 327, Bozeman, MT 59771)

Agenda for the Annual Meeting

Minutes from October 20, 2001

Nomination Slate, 2002

Current List of the Whirling Disease Foundation Board of Directors

Financial Reports

Whirling Disease: Reviews and Current Topics (AFS) order form

“Henckel Column: Whirling-resistant rainbows hot topic” article, Billings Gazette

“Milesnick Spring Creeks” article, Harry Piper

“2002 Angler of the Year Ted Turner”, Fly Rod & Reel

“The Most Beautiful House in the World,” The Inc. Life

Introduction:

I'm Bud Lilly. I have been extremely fortunate to have spent nearly all my life fishing, guiding on, and enjoying the Madison River. I have seen many changes to the river, many of them positive. Topping this list was the decision to stop stocking fish from hatcheries and allowing wild fish to naturally reproduce. This management change increased the quality of the Madison River as a trout fishery many times over what could ever be achieved through the stocking of hatchery fish. The Madison River is a national treasure and has served as a model for the philosophy of wild trout management across the country.

Whirling Disease has now hit the Madison River and its rainbow trout population is in deep trouble. This disease represents the single greatest threat the Madison fishery has ever faced. And because Whirling Disease has struck the Madison, the disease is finally starting to get the attention it deserves. This is a time for quick action. The disease is being found in new waters on a regular basis and is spreading in those waters where it is known to exist. I ask that you carefully consider the information we are providing you and offer your support to help us fund research to find the answers to stop the devastation this disease is causing, not only in the Madison River, but in many of the best trout fisheries in the country.

DRAFT SCRIPT FOR THE WHIRLING
DISEASE PROMOTIONAL VIDEO --
9-15-95

Bud Lilly introduction.

In December of 1994, the fly fishing world received a stirring wake-up call. The parasite that causes Whirling Disease (WD) had been found in Madison River trout. Though few anglers knew the full implications, a 90% loss of wild rainbows in Montana's Blue Ribbon Mecca got their attention. The rainbow population had declined from about 3300 per mile to 300 in just three years. In addition to the Madison River, the WD infection has now been detected in several other Montana waters, including Willow Creek, the Jefferson River, several tributaries to the Red Rock River, the Ruby River, Poindexter Slough which is a tributary to the Beaverhead River, and two separate locations in the Clark Fork River.

The WD parasite, called *Myxobolus cerebralis*, (mix-SAW-bo-lus sair-ih-BRAL-iss) has inflicted even more damage on rainbow populations in Colorado. Stretches of the Upper Colorado, South Platte and Gunnison rivers nourished abundant strains of exceptional rainbows as recently as the late 1980s. But just half a decade later, only a handful of older bows remain. In a last ditch effort to preserve remnant rainbow gene pools in the most heavily devastated Colorado streams, Fish and Game biologists are now taking spawned eggs from infected wild rainbow populations and hatching them in uninfected hatcheries. The fish from these eggs are raised to a size past the most susceptible stages of their development before being returned to the river. This is a drastic and costly endeavor which has been undertaken as a last ditch effort to ward off extinction of the Colorado River rainbow long enough to explore potential solutions for the WD problem.

The WD parasite has now been identified in the waters of 20 states. Although its presence has not always resulted in major rainbow losses, its potential for devastation is clearly very high - for three basic reasons:

1. The minute spore form of the parasite is all but indestructible and is capable of surviving 20

GRAPHIC:
TITLE: ???

SUPER: BUD LILLY (anything else?)

VIDEO: Montage of Madison River scenics, fly fishing scenes, with headlines superimposed.

Worm sampling clips

VIDEO: parasite with scientific name superimposed

Barry Nehring and staff at CO test site

Clip of whirling fish and/or blacktail

GRAPHIC:
map showing states with problem
GRAPHIC:
HOW BAD IS WHIRLING DISEASE...
...AND WHY?

- 1) SPORE FORM IS INDESTRUCTIBLE

years or longer - even when desiccated or frozen;

2. It is a reproductive marvel. Up to a million of the spores can be created in a single small fish; and,

3. It is highly migratory. It freely drifts downstream, but can also move upstream in infected fish. Spores can also be transported *interbasin* in fish-eating birds or even in mud attached to drift boats or fishing equipment.

... and once a stream is infected with the parasite, it is likely there forever.

Since the WD parasite arrived in North America about 40 years ago from its European base, it has received little scientific scrutiny. Much of what is known has come from lab studies relating to hatchery situations and more than likely will be of little use in dealing with the disease in natural conditions. Very little research has been aimed at wild trout populations.

M. cerebralis affects trout by attacking the cartilage of very young fish. The parasite directly kills many of these young fish. In others which are not killed, the parasite migrates to the cartilaginous area around the brain, rapidly multiplying, putting pressure on the organ of equilibrium, causing them to swim erratically or to whirl. The whirling fish are subject to increased predation, increased susceptibility to other fish diseases and decreased ability to feed.

Brown trout, which co-existed with *M. cerebralis* on the Eurasian continent for millennia, also become infected by the savage parasite, but are not usually affected; that is, they generally show no clinical signs of WD. Laboratory examination of infected brown trout indicates a response to the parasite that quickly walls off the spores. However, recent electroshocking of Montana's highly infected Poindexter Slough shows a sharp decline in young browns, though not quite as severe as that among rainbows. Similar loss of brown trout population numbers has been observed in highly infected stream reaches in Colorado.

2) SPORES ARE A REPRODUCTIVE MARVEL

3) SPORES ARE HIGHLY MIGRATORY

GRAPHIC:
WHAT DO WE KNOW ABOUT WHIRLING DISEASE?

VIDEO: lab scenes

GRAPHIC:
HOW DOES WHIRLING DISEASE AFFECT FISH?

VIDEO: deformed fish montage

Because short-term prospects for maintaining wild rainbow populations in Rocky Mountain streams appear bleak at best, and their return to long term self-renewal could take decades, a small group of conservation advocates in Bozeman, Montana have formed the Whirling Disease Foundation to help facilitate the effort to restore endangered wild rainbow trout populations. In May, 1995, the Foundation convened a three-day working conference attended by fishery managers and biologists with first hand knowledge of the problem and the parasite. Also attending were scientific experts in pertinent disciplines of genetics, immunology, fish pathology, and molecular biology. Immediate solutions were not forthcoming, but creative thinking, based on scientific reality, suggested the most promising directions for research. The four top priorities are:

1. To assess the degree of susceptibility or resistance to WD of various salmonid species and strains. Some strains of rainbows that are naturally resistant to a North American WD related parasite have been found and could provide the long term answer.
2. To perform experimental studies of clinical disease, immune response, and quantitative spore production in various salmonids.
3. To determine the mechanism of resistance in brown trout.
4. To develop simpler, non-lethal means of detection of WD. The Foundation played a key role in helping to secure funding in the amount of \$178,000 for a research project geared to this priority

The Whirling Disease Foundation's major role is to generate funds to make these research efforts possible. The scientific talent is available and the interest in this research is widespread. Grants will be made on a competitive basis, selected by a highly qualified scientific panel, free of potential conflict of interest. Additionally, the Foundation will help facilitate a cooperative public and private sector response to this problem along with being an information source for the general public. Throughout all of these efforts, the Foundation will emphasize the

GRAPHIC:
WHAT CAN BE DONE?

VIDEO: Conference footage

GRAPHIC:
ASSESS SUSCEPTIBILITY OR RESISTANCE
IN SALMONID SPECIES

EXPERIMENTAL STUDIES OF:
--CLINICAL DISEASE
--IMMUNE RESPONSE
--SPORE PRODUCTION

DETERMINE MECHANISM OF
RESISTANCE IN BROWNS

DEVELOP NON-LETHAL METHOD OF
DETECTION

VIDEO:
river scenes?

restoration of wild fish and resist any efforts to replace lost trout populations with hatchery fish.

The Whirling Disease Foundation exists only to help solve the WD problem. It will cease to exist as soon as self-sustaining wild trout populations are re-established in waters where the disease has caused declines in their numbers.

WD is a problem that will not go away on its own. Not only that, it is a problem that is spreading and causing more devastation every day. Ironically, the most productive trout streams are the streams that are most susceptible to devastation by the disease because of higher densities of young fish. It is in these fisheries where we have the most to lose and where we stand to lose the most.

Even the best and most promising research, properly funded, cannot guarantee healthy wild trout fisheries in the near future. Seeking, or even attempting to develop, resistant strains is a difficult task. But this effort is certainly not without hope. By helping to fund such efforts, you have an opportunity to help bring home a very rewarding and far-reaching payoff. The Whirling Disease Foundation urges your thoughtful consideration to support this effort.

Bud Lilly closing.

VIDEO: scenes of rivers and fisherman catching fish

GRAPHIC:

WHIRLING DISEASE FOUNDATION
address
phone
etc.

SUPER:

Producers wish to thank the following for their contribution to this video presentation:

MONTANA TROUT FOUNDATION

Bud -

Here's the latest version
of your letter to out-of-
state anglers.

I hope you can live with
the bottom line of the first page.
It's intended to "wake 'em up"
with an unexpected and strong
word.

In any event, only your
changes will be made, if you
need any.

Ji

Dear :

The Whirling Disease Foundation exists for just one reason—to encourage, accelerate, and financially support research that could overcome the ill effects of whirling disease. We realize that probably 98 percent of all Americans are little interested in the problem and naturally we hope your flyfishing experiences for wild trout make you the exception. Herewith, some materials that should broaden your understanding of how whirling disease works.

It, and the workings of the causative parasite, *Myxobolus cerebralis*, are fascinating, mysterious, and not completely understood at this point. However, the general feeling at two scientific symposia convened by the Whirling Disease Foundation was that there is a good chance some strains or subspecies of wild rainbow may be naturally resistant. Looking for them by means of controlled laboratory study (followed by instream live-box testing) is top priority for Foundation funding. It is not an inexpensive undertaking. Dr. Karl Johnson (a career virologist who discovered the Hanta and Ebola viruses and co-founded the Whirling Disease Foundation) estimates that such testing on just one strain would run about \$75,000.

There are other avenues of scientific inquiry that could help lead to a solution. For example, today, diagnosis of infection in any fish requires the assassination of the animal. A non-lethal means of whirling disease detection is

an obvious high priority. So is an expansion of knowledge of the parasite's alternate host, the Tubifex worm.

There must be a few million anglers who have enjoyed and benefited from western wild trout fishing. Given the nature of things, we know that only a small percentage of them will assume responsibility for helping with the *M. cerebralis* problem. I urge you to be one of them, to do more than your share, because many will do less. Pick your own reason: gratitude for past angling experience; a finely honed generosity; an investment in the future; or an admiration for the wonderful qualities of wild trout. All of the above.

The best hope of maintaining wild rainbow in *M. cerebralis*-infected waters lies in aggressive scientific research. Public funding alone will not suffice. A substantial number of donations in the four digit range and many more in the mid-to-high three digits will be required. Please participate as your situation permits. We are grateful for your involvement.

Cordially,

Bud Lilly

P.S. The Whirling Disease Foundation is a non-profit, tax-deductible 501 (c) (3) organization. Contributions from ~~our~~^{your} angling friends would be appreciated. We'd be glad to send additional copies of the brochure and primer.

Montana Department
of
Fish, Wildlife & Parks



P. O. Box 200701
Helena, MT 59620-0701
(406) 444-3186
FAX: 406-444-4952
Ref: PG0302.95
May 11, 1995

FAX: 406-586-8713

Bud Lilly
2007 Sourdough Road
Bozeman MT 59715

Dear Bud:

Thank you for your interest in the whirling disease problem, and for your commitment to serve on the Governor's Task Force.

I appreciate your prompt response to suggested meeting dates. I know you are anxious to get the date on your calendar therefore this comes before your official notification of appointment by Governor Racicot. The first meeting has been scheduled at the Colonial Inn [2301 Colonial Drive, Helena (406-443-2100)] from 8:30am - 4:30pm, Tuesday, May 23, the date selected by the majority of members. We are hoping that the Governor will be able to stop in for a few minutes to meet you personally.

Attached is an agenda on an upcoming Working Conference on Whirling Disease in Bozeman, Montana that might be of interest to you. A whirling disease brochure produced by the Department and specific information on the Task Force goals/objectives will be coming early next week.

If you have any questions or comments, please do not hesitate to contact me. Again, thank you for your willingness to participate.

Sincerely,

Pat Graham /m

Patrick J. Graham
Director

Encs: Agenda
Membership List

c: Glenn Marx

WHIRLING DISEASE FOUNDATION

Solutions Through Science

DIRECTORS

Thomas R. Arnecker
Jim Belsay
Karl M. Johnson
David Kumilen
Bud Lilly

Working Conference on Whirling Disease Bozeman, Montana 16-17 May 1995

Grantree Inn, I-90 & N. 7th Ave, Bozeman (406-587-5261)

Sponsors: Whirling Disease Foundation through private donation
Montana Department of Fish, Wildlife and Parks
Montana State University

I. Purpose:

- a. To review status of whirling disease (WD) in western watersheds where there are significant populations of wild rainbow trout and/or truly native salmonids, and to discuss current plans for monitoring and field studies of the disease.
- b. To review status of basic research on this and other parasitic diseases of cold water fishes in the United States.
- c. To provide a current assessment of needs and possibilities designed to serve as baseline with which to raise private (and public) funds to be devoted specifically to research on this and related diseases in riverine populations of salmonids.

II. Basic Theses:

- a. Little is known regarding WD in wild salmonids, and it was not suspected that this parasite would have much deleterious effect on such populations.
- b. Research programs on WD in this country are virtually non-existent. The federal program at Lees Ferry, W. Va., has languished since the retirement of Dr. Ken Wolf and Maria Markiw, who were responsible for much of what is known regarding host-parasite interaction. Few universities have any active programs, and state agency efforts are largely confined to "ecological" activities.
- c. Further spread of this disease in salmonids has both great economic and emotional consequences to the citizens of the Rocky Mountain region and this country.

III. Format:

- a. Round table, with tight primary reports/presentations, and open ended discussion.
- b. Consensus conclusions/recommendations for each subject, or clear agreement that consensus is not possible on a given subject, with summary of different views.
- c. The goal is to keep the group small to encourage free-ranging discussion.

IV. Subjects:

- a. Status of methods for field investigations, diagnosis, etc.
- b. Status of WD in several western states.
- c. Plans for field studies in 1995 and beyond.
- d. Oligochaete worm review. Methods, taxonomy, possible areas for research.
- e. Update on salmonid genetics. Research possibilities for further study of host-parasite interaction, eventual selection by man or nature of "resistant" strains. Who can work where?
- f. Review of salmonid immunology, basic and known role in infections. Future comparative study of species response to parasite.

Jim Ahrens
Montana Hospital Association
P O Box 5119
Helena MT 59604

Kirby Alton Ph D
815 Country Valley Road
Thousand Oaks CA 91362

Thomas R Anacker P C
P O Box 1247
Bozeman MT 59711-1247

John Bailey
Bailey's Fly Shop
P O Box 1019
Livingston MT 59047

Marshall Bloom MD
903 South Fourth
Hamilton MT 59849

Matt Cohn
Travel Montana
1424 Ninth Avenue
Helena MT 59601

Robyn Cunningham
P O Box 311
Gallatin Gateway MT 59730

Patrick J. Graham
Montana Fish, Wildlife & Parks
1420 East Sixth Avenue
Helena, MT 59620

Mike Hayden
American Sports Fishing Association
1033 N Fairfax St Suite 200
Alexandria WA 22314

Dr Roger Hernan
National Biological Service
Fish Health Laboratory
1700 Leetown Road
Kearneysville WV 25430

Bob LeFeber
Fran Johnson's Sport Shop
1957 Harrison Ave
Butte MT 59701

Bud Lilly
2007 Sourdough Road
Bozeman MT 59715

Dud Lutton
Montana Nature Conservancy
32 S Ewing
Helena MT 59601

Jackie Matthews--has been unavailable for
confirmation of willingness to serve

Art Neill
Montana Power Company
40 E Broadway
Butte MT 50701

Chris Somers
Harby and Somers
P O Box 3008
Butte MT 59702

Bruce Whittenberg
Independent Record
P O Box 4249
317 Cruse Avenue
Helena MT 59604

Ed Williams
Rainbow Valley Motel
P O Box 26
Ennis MT 59729

782
3322

V. Participants:

a. Fisheries biologists and pathologists.

Dick Vincent, Montana
Marc Lero, Montana
Barry Nehring, Colorado
Ron Goede, Utah
Richard Holt, Oregon

Jim Peterson, Montana
Peter Walker, Colorado
Kent Hauck, Idaho
John Modin, California
Anthony Amandi, Oregon

b. Academic scientists from several states and provinces.

Fish Diseases-Parasitology

Ron Hedrick, U.C. Davis
Stuart Knapp, M.S.U. Bozeman
Michael Kent, Nanaimo, B. C.

Jeri Bartholomew, O.S.U. Corvallis
Beth MacConnell, FWS, Bozeman
Robert Devlin, Ca. F&O, Vancouver

Oligochaete Worms

Deedee Kathman, Nashville

Immunology

Irving Weissman, Stanford
Steven Kaattari, U. Va. Norfolk

Sandra Ristow, W.S.U. Pullman
Donald Evans, U. Ga.

Michael Belosivic, U. Alberta

Fish Genetics

Gary Thorgaard, W.S.U. Pullman
Bill Hershberger, U. W. Seattle
Fred Allendorf, U.M. Missoula

VI. Preliminary Agenda

Tuesday, May 16

WD Science: What do we Know?

Moderator: Stu Knapp, Bozeman
Presenters: Fish Disease/Biology Panel
Time: 8:30-12:30

Potential Contribution of Fish Immunology

Moderator: Irving Weissman, Stanford
Presenters: Immunology Panel
Time: 1:30-5:30

Wednesday, May 17

WD and Salmonid Genetics

Moderator: Ron Hedrick, Davis
Presenters: Genetics Panel
Time: 8:30-12:30

Research Priorities: Where do we go?

Moderator: Karl Johnson, Bozeman
Participants: All
Time: 1:30-3:30

Thursday, May 18

Open Public Question/Answer Period 3:30-4:30

Taxonomy of Oligochaetes: A Look at the Sunday Collection

Instructor: Deedee Kathman, Nashville
Participants: All Survivors
Time: 8:30 a.m. - 11:30 a.m.