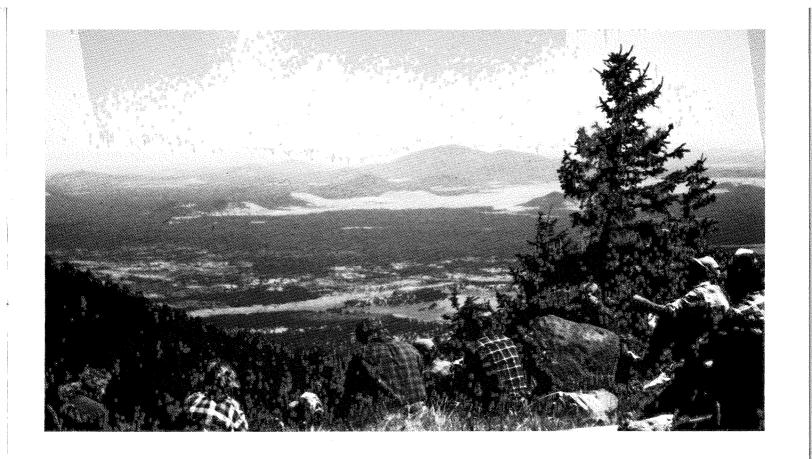
ANNUAL YIELD 1990



Northern Arizona University School of Forestry



Published by Northern Arizona University Forestry Club Student Chapter Society of American Foresters Flagstaff, Arizona 1990

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DEDICATION



William "Bill" L. Holmes

It is to a man directly responsible for students developing a direction in a forestry career (and countless employment positions) that the 1990-91 Annual Yield is proudly dedicated.

William "Bill" Holmes has been at the Northern Arizona University School of Forestry for seven years. During that time Bill has, and continues to provide a place for us to go when we seek more than books and studies. He gives us the chance to practice our newly acquired talents and knowledge, a chance to get a hands-on professional forestry experience. He's a Mecca for many job hunters.

The silver-haired giant can be seen in the corridors of Friar Hall, giving time and encouragement to the determined students looking for "something bigger and better," as he says, "something better than flipping burgers." But, when he's not helping someone land a job, he is either lecturing, coordinating the vehicle fleet or heading-up the Property Space Management Department at the School of Forestry. "I'm sort of a catch-all for whatever," he grins.

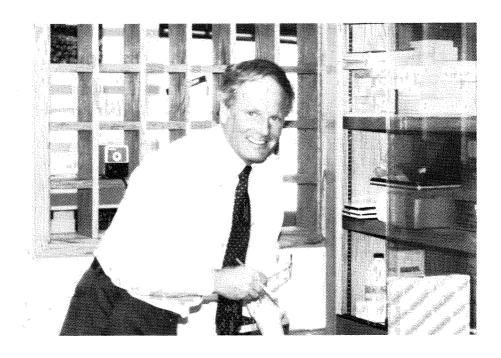
Raised in Kansas, Bill worked for the United States Forest Service for thirty-three years after receiving his Bachelor of Science in 1950 from Colorado State University. He began his forestry career as a laborer, but he quickly achieved higher status, working for several national forests. Included in his USFS career are stints as Deputy Forest Supervisor and District Ranger for the Coconino and Prescott National Forests, respectively.

"When I first started in forestry there was more opportunity, more jobs. Now there's damn few," he says. He'll also tell you there's room in forestry for those who really want it.

This may be why the favorite aspect of his job is getting people enthused and seeing results. When it comes to his plans for the future... "I don't know. I guess I'd like to work here 'till I can't anymore. I like working with the students."

Thanks for the results, Bill.

MESSAGE FROM THE DEAN



David L. Garrett

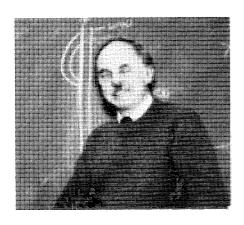
Another year has passed for your School of Forestry, a very positive year. Changes are apparent in every aspect of your school, and yet, amongst all those changes are some critical common characteristics that don't change, by design. The fraternal student camaraderie, the close faculty/student relationships, the commitment on everyone's part to do only the best.

I see this in the Forestry Club. Each year it is changing, taking on exciting new programs and many new dimensions. Yet, at the center of the club's change and growth are a great bunch of young people doing some great things for the school, the Flagstaff community, and the profession of forestry.

So, even though there is a lot of change in the school and the Forestry Club, I also see stability and continuity. And, it stems directly from a long line of great students who place human values at the very top of their list.

This Forestry Club has a proud history of accomplishments, and always with a strong commitment to human values. Each year I see a rededication to that tradition. To today's club members, and those who have passed before, I and the faculty appreciate all that you have accomplished.

FACULTY



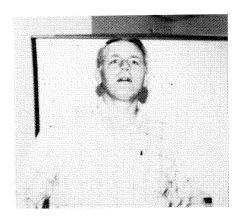
Professor of Forestry
B.S. Utah State University 1961
Cert. French Nat'l School of Forest
and Waters 1962
M.F. Duke University 1963
Ph.D. University of Washington 1972
Forest Hydrology; Watershed
Management; Environmental
Conservation



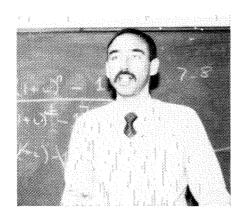
W. WALLACE COVINGTON
Professor of Forestry
B.A. North Texas State University 1969
M.S. University of New Mexico 1972
Ph.D. Yale University 1976
Forest Ecology and Applied Modeling;
Fire Management



RICHARD W. BEHAN
Professor of Forestry - Dean Emeritus
B.S.F. University of Montana 1957
M.S.F. University of Montana 1960
Ph.D. University of California 1971
Resource Policy



DENNIS P. DYKSTRA
Professor of Forestry
B.S. Oregon State University 1966
M.B.A. University of Oregon 1971
Ph.D. Oregon State University 1976
Timber Harvesting; Multiresource
Management



BRUCE E. FOX
Assistant Professor of Forestry
B.S. University of California/Berkeley
1975
M.F. University of California/Berkeley
1976
Ph.D. University of Michigan 1980
Forest Policy; Multiresource Forest
Management; Forest Economics



CHARLES C. GRIER
Professor of Forestry
B.S.F. University of Washington 1968
Ph.D. University of Washington 1972
Forest Ecology; Forest Soils;
Forest Ecosystems



DAVID L. GARRETT
Dean of School of Forestry
Professor of Forest Economics
B.S. Southern Illinois University 1963
M.S. Michigan State University 1965
Ph.D. Michigan State University 1975
Multiresource Management; Forest
Economics



WILLIAM A. GROMAN
Associate Professor of Forestry
Coordinator, Undergraduate Programs
B.S.F. Penn State University 1953
M.F. Oregon State University 1969
Ph.D. Oregon State University 1972
Forest Measurements



BILL HOLMES

Lecturer; Facilities and
Equipment Maintenance
B.S.F. Colorado State University 1950
Resource Management; Paraprofessional



EARNEST A. KURMES
Professor of Forestry
Coordinator, Graduate Programs
B.A. Lehigh University 1953
M.S. Yale University 1957
M.F. Yale University 1958
Ph.D. Yale University 1961
Silvics; Silviculture



ROBERT E. LARSON
Associate Professor of Forestry
B.A. University of Colorado 1966
M.S. University of Colorado 1968
Ph.D. Colorado State University 1976
Wood Technology; Wood Utilization



JOHN PAUL McTAGUE
Assistant Professor of Forestry
B.S.F. Syracuse University 1974
M.F. Yale University 1976
Ph.D. University of Georgia 1985
Tree Improvement; Growth and
Yield Studies



MARGARET MOORE

Assistant Professor of Forestry
B.A. Valley City State University 1980
M.S. North Dakota State University 1982
Ph.D. University of Minnesota 1987
Forest and Range Ecology; Range
Management; Aerial Photo
Interpretation/Remote Sensing;
Geographical Information Systems



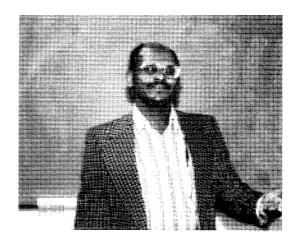
DAVID R. PATTON

Professor of Forestry
B.S. West Virginia University
M.S. Virginia Polytechnic Institute
Ph.D. University of Arizona
Forest Wildlife Ecology



MERTON T. RICHARDS

Associate Dean of the School of Forestry Associate Professor of Forestry B.S. University of Montana 1971 M.S. University of Arizona 1974 Ph.D. University of Arizona 1980 Forest Economics; Forest Recreation



AREGAI TECLE

Assistant Professor of Forestry
B.A. Anderson University/Indiana
M.S. Ball State University
M.S. University of Arizona
Ph.D. University of Arizona
Hydrology; Natural Resource
Management



RONALD L. TROSPER

Director, Native American Multiresource
Forest Management Cooperative Program
Associate Professor
B.A. Harvard University
M.S. Harvard University
Ph.D. Harvard University



Professor of Forestry
B.S. Purdue University 1953
M.S. Oregon State University 1960
Ph.D. Oregon State University 1964
Dendrology; Logging; Aerial Photo
Interpretation; Forest Genetics



MICHAEL R. WAGNER
Associate Professor of Forest Pest
Management
B.S. University of Wisconsin/Madison
1972
M.S. University of Wisconsin/Madison
1977
Ph.D. University of Wisconsin/Madison
1980
Forest Entomology; Forest Pathology



D. BRENT WOOD
Professor of Forestry
B.S. University of Utah 1967
M.F. Utah State University 1973
Ph.D. Utah State University 1978
Forest Economics; Forest Management

Supporting Staff



STEVEN W. ANDARIESE Research Assistant III



CHARLES T. BULLINGTON
Program Coordinator I



PAT HALL
Research Assistant III



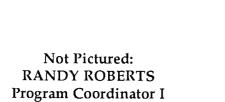
MARY B. HINES Secretary III



INEZ LIGHT Secretary II



GISELA M. McCORMICK Assistant to the Dean





BILL STANSFIELD Research Assistant III

Southwest Forest Science Center



NAU and the U.S. Forest Service are cementing a partnership that will establish a Southwest Forest Science Center in Flagstaff, linking, both physically and programmatically, the two entities.

The new center, which will serve the entire Southwest, will tie the U.S. Forest Service's extensive research programs to the instruction, research and public service programs of an expanding NAU School of Forestry.

The planned 100,000 square-foot complex will provide facilities for the NAU School of Forestry and the USFS Rocky Mountain Forest and Range Experiment Station (RMFRES) research programs, currently housed on the campus of Arizona State University and at NAU.

"The program is a prototype for integrating forest science and education to address land management and resource management issues in the Southwest," said Arizona Sen. Dennis DeConcini.

"This is an opportunity for cooperative, mutually beneficial interaction between a federal research organization and a leading educational institution that is a nationally recognized leader in forestry," according to DeConcini.

NAU President Eugene M. Hughes said the initial \$1.5 million appropriation for planning must be followed by approximately \$18-\$20 million in federal funding over the next two years to construct the complex. NAU's share of the construction cost would be about \$5 million, excluding land values, Hughes noted.

"NAU forestry faculty and graduate students will work with Rocky Mountain Station scientists on identifying research problems and defining research approaches. The new science that develops from that research will feed into the curriculum of our undergraduate and graduate forestry programs," Hughes said. "The partnership also will provide a direct pipeline for funneling research findings to public land managers for more rapid implementation," Hughes added.

The NAU School of Forestry organized its entire undergraduate curriculum toward an integrated multiresource management emphasis of study in 1973. Three years later, federal landmark legislation mandated this form of management on all federal forest land nationwide.

"The problem is that there is a long line of traditional forestry education, research and management centered on individual resources. It's only in the last 15 years of a 100-year-old American forestry profession that we've studied the forest as an ecosystem," said Dr. Lawrence D. Garrett, Dean of the School of Forestry. "Our job is to advance the science of integrated multiresource management so that it becomes the central thrust of forestry science in the United States."

Lisa Nelson Mountain Campus News

GRADUATE STUDENTS



Peggy Abbot



Margaret Bailey



Mary Clough



Ken Cormier



Cecelia Dargan



Sally Davidson



Dale Dieter



June Douglas



Clarence Dunbar



LeGrand Einbender



Tod Ericson



Peter Fule



Mike Golden



Pete Gordon



Mike Hannemann



Lisa Haynes



Bill Horswill



Molly Hysell



Yiqun Lin



Cheryl Mollohan



Patti O'Connor



Pam Raskob



Arthur Reinelt



Gerry Sauer



Sue Schuhart



Floyd Sebald



Robert Whitehead



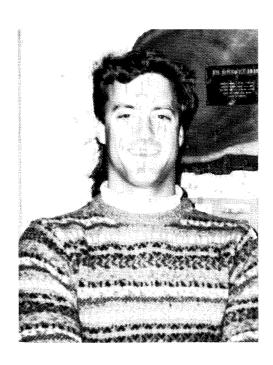
Zhao-Yi Zhang

Not Pictured:

Zoran Antoijevic Hilaire Bojonell Carol Furey-Werhan David Huffman Frank Lenning Frederik Lulka Jonathon Martin Joel McMillin Jacob Schlapfer Peggy Swift Ting Hwee Yow Lan Zheng



MESSAGE FROM THE PRESIDENT



Steve Emershy

This year the club has been filled with enthusiasm and school spirit. The unity, loyalty, and friendship that the club members have exhibited this year have made me proud to be a member of the forestry club. Their willingness to give of themselves was manifested in the woodcutting project in which the club cut eight cords of firewood for senior citizens in the community.

The club also sponsored many informative speakers like Jeff Debonis from the Association of Forest Service Employees for Environmental Ethics. They took an active part in this years Earth Day celebration by planting trees with school children throughout Flagstaff. This year saw the return of the Forestry Club's logging team which participated in the Forestry Conclave at Humboldt State University in northern California.

It has been a fun and productive year, and my hope for next year is that the club stays strong and grows in support. My thanks to the executive council, and faculty advisors (Dr. Fox, Bill Holmes, and Dr. Richards) for doing a tremendous job, and my best wishes for next years executive council.

Sincerely,

SENIORS



Paul Baird



Jarrett Barber



Bret Billesbach



Marvin Brown



Matthew Coleman



Pete Denetclaw



Rick Hodge



Joe Marco



Kathy McManus



Eric Ozog



Todd Ralls



Harold Riggs



Jack Sathe



Mark Schug



Kirk Seitz



Todd Snider



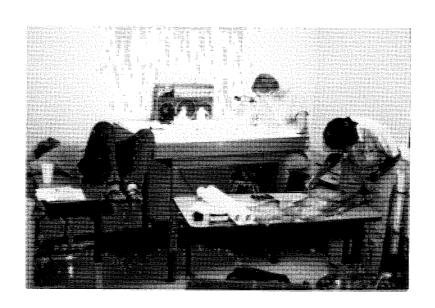
Michael Soulen



Pamela Wagner

Not Pictured:

Andy Snyder Teiva White



-page 16-

JUNIORS



Bill Astor



Brad Balton



Joe Bouley



Russ Cruff



Lisa DeValantino



Jim Downey



Steve Emershy



Mark Faugn



John Gemmill



Todd Haines



Chris Hart



Jim Juragui



Dennis Kuppersmith



Jeff Leonard



Bob Mergill



Lann Moore



Bill Morris



Larry Morrison



Norma Ordonez



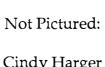
Michele Paul



Brian Poturalski



Nik Ranta



Cindy Harger Will Hutcher John Yazzie



Don Schagel

SOPHOMORES



FRESHMEN



NATIVE AMERICAN FORESTRY PROGRAM



Native American, Pete Denetclaw receives the duBois Foundation Forestry Scholarship.

Meshing tradition with the ways of the new is drawing Native American forestry students to Northern Arizona University. On August 23, 1989 under the direction Ronald Trosper, the Native American Forestry Program opened it's doors. The program will develop educational and research activities which support Native American tribes in acheiving self-determination in the management of their forested lands.

In order to achieve this goal, the program will support the education of American Indians in forestry and other related disciplines. It will also support both basic and applied research on forested lands. The education and research will have an explicit orientation: to use existing, rediscover lost, and develop new forest knowledge generated by philosophical and ethical approaches of Native Americans. The scientific advances of European culture will be utilized and extended when they appear useful to American Indians. The results of research in this program will be integrated in the general forestry curriculum of the School of Forestry.

Prior to 1975, the Bureau of Indian Affairs professional staff controlled forest management on all reservations. Tribes participated through contracts, usually in temporary jobs funded by timber stand improvement and administrative fee deductions from timber sale revenue.

In 1975, Public Law 93-638, The Indian Self-Determination and Education Act, gave tribes a way to take control of their forests by entering into "638 contracts." Three conditions for tribal control exist given the current institutional situation on Indian reservations. These are:

- 1. A tribe needs to have its own forestry or natural resource organization which reports exclusively to the governing body, and which is trusted by the governing body;
- 2. That entity needs to have a high proportion of tribal members with both B.S. and M.S. degrees in fields related to forested lands; and,
- 3. The tribe needs management tools and research results which organize available information in a manner that is useful for land management.

The Native American Forestry Program is designed to help the tribes to achieve the second and third conditions.

Currently, 15 undergraduate Native American students and 1 masters student are enrolled in the School of Forestry. Within five years, the Native American Forestry Program would like to attain a graduation rate of 5 to 10 Native American bachelors students per year, 4 masters students and 1 Ph.D. Other targets include: coordinating education during the freshman and sophomore years with other institutions which may be appropriate places for students to prepare prior to junior and senior years at NAU; have significant Native American material in the undergraduate forestry curriculum; have 5 internships with tribes; and, to incorporate continuing education programs.

The Native American Forestry Program is very unique in the world of forestry education and research. No other forestry school in the Unived States has attempted to combine the Indian and European cultures in the scientific arena. The NAU School of Forestry's tradition of multi-resource management will be greatly benefitted by the addition of the Native American Forestry Program.

Society of American Foresters





The Society of American Foresters is a national organization representing all segments of professional forestry in the United States, private practitioners, researchers, administrators, educators and students alike.

This past year, the student chapter of SAF provided students with the opportunity to implement an involvement with professionals in the field. Northern Arizona University has had a strong student chapter, and we're predicting even more involvement and meetings for next year.

Robin Pacheco Chair of student chapter

Lena Tucker Representative



SOUTHWESTERN SOCIETY OF AMERICAN FORESTERS

Representing Professional Resource Management in the Southwest

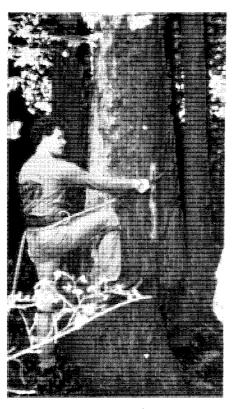
NAU CAPTURES DIVISION HONORS AT AWFC CONCLAVE



Robin and Lena Showing true grit.



The Humboldt Chainsaw Massacre.



Tarzan looking for Jane.



Heave-Ho!



Use your #3 wood Jimno!



Lena competes in the Axe Throw.



A grown-up game of pick-up sticks.



Powered by beer.



"The Untouchables"

FORESTRY HONORS CONVOCATION OCTOBER 20, 1989

Sherrie Alford Forestry Scholarship MICHAEL H. SOULEN

Alta Vista Garden Club Scholarship RICHARD I. HODGE

Applequist Award ERIC M. OZOG

Raymond Aso Forestry Scholarship JERRY A. WELCH

Robert A. Blaser Forestry Scholarship BRAD L. BOLTON

Laurel and Dorothy Brenn Forestry Scholarship LARRY R. MORRISON

Tony Czak Memorial Scholarship LANN W. MOORE

Dave's Lumber Forestry Scholarship JAMES M. JAUREGUI

D R Systems Inc. Scholarship PAUL D. BAIRD

du Bois Foundation Scholarships PETER DENETCLAW RICHARD I. HODGE MCHELE M. PAUL

Von Dunford Forestry Scholarship BRIAN K. POTURALSKI

Empire Southwest Forestry Honor Scholarship TODD J. SNIDER

Flagstaff Cabinet Company Forestry Scholarship WILLIAM E. HATCHER

Forestry Alumni Scholarships JACK L. SATHE DONALD H. SCHLAGEL

Forestry Author's Scholarship CHRISTINA M. HART

Forestry Club Award RICHARD I. HODGE HAROLD K. RIGGS PAMELA K. WAGNER The Pamela and David Garrett Forestry Scholarship STEVEN R. EMERSHY

Greenlaw Forestry Scholarships LANN W. MOORE HAROLD K. RIGGS

Kaibab Forest Products Company Awards PAUL D. BAIRD CRISTINA M. HART

Tommy Knoles, Jr., Forestry Scholarship PAMELA K. WAGNER

Lee Newman Forestry Scholarship NORMA A. ORDONEZ

Northern Arizona Loggers Association Scholarship NIKLAS O. RANTA

Raymond Foundation Forestry Scholarship JOSEPH P. BOULEY

Sharalon Runyon Forestry Scholarship MICHAEL H. SOULEN

Stan Samuels Forestry Scholarship WILLIAM E. HATCHER

Dave Schmidt Forestry Scholarship PAMELA K. WAGNER

Sam Schranton and Scott Spleiss Forestry Scholarship BRAD L. BOLTON

Stone Forest Industries Forestry Scholarship JEFFREY L. LEONARD TODD S. RALLS

Glenn Voories Scholarship JARRETT J. BARBER

Navajo Forest Products Industries Scholarship JOHN H. YAZZIE

FORESTRY CLUB - 1990 EXECUTIVE COUNCIL



Back row: Bill Holmes, Faculty Advisor; Steve Emershy, President.

Front row: Chris Hart, Vice President; Lena Tucker, Secretary; Robin Pacheco, Sophomore Representative; Brian Poturalski, Junior Representative; Michele Paul,

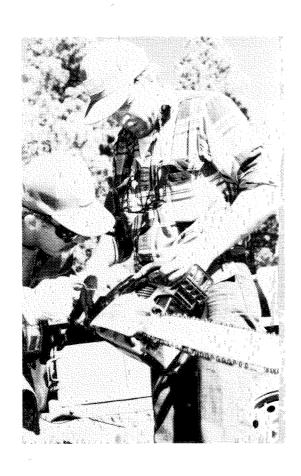
Treasurer; Mike Hannemann, Graduate Student Representative.

Not Pictured: Pam Wagner, Senior Representative; Brad Getner, Freshman

Representative.



FORESTRY CLUB ACTIVITIES

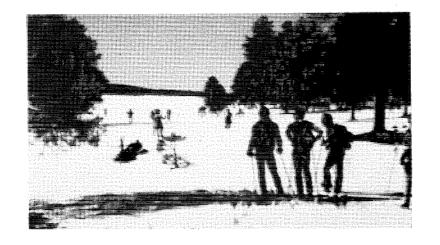




Senior Citizen's Woodcutting Project



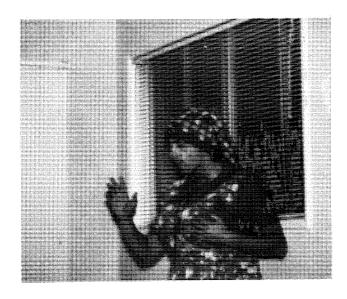




Cross-Country Skiing at Roger's Lake



Volleyball at the welcome aboard party.



Intramural Basketball.



Julia Childes visits the Forestry Club Christmas Party

THE SEMESTER "B" CADENCE

Mama, mama, can't you see What this class has done to me I used to go outside and play Now I'm in this class all day

I used to walk around the block Now I punch the old time clock I used to drive a Cadilac Now I cut and buck and stack I used to shake my doggies paw Now I wield a big shain saw I used to pet my kittycat Now I'm wearin' my hard hat

I used to jump and laugh and sing Now I'm diggin' fire ring I used to sit around all day Now I'm earnin' fire pay OH, OH, OH, OH, Cut that tree and don't be slow I used to drive my car and crash Now I'm stackin', burnin' slash

Mama, mama, listen here I'm hangin' up my fire gear 'Cause mama, mama, can't ya' see I can't handle SEMESTER "B"

Todd Haines



Congratulations on the New Southwest Forest Science Complex



We are proud to be part of the project team as architect/ engineer. We wish Northern Arizona University and the United States Forest Service all the best in their roles as leaders in research and study in the Forest Sciences.

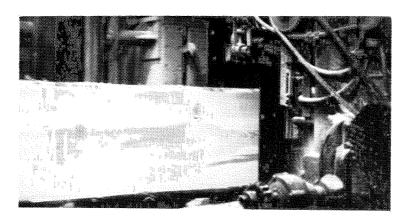


Tucson • Phoenix • San Francisco

ANDERSON DEBARTOLO PAN, INC. ARCHITECTURE & ENGINEERING

NATURES' CLASSROOM...









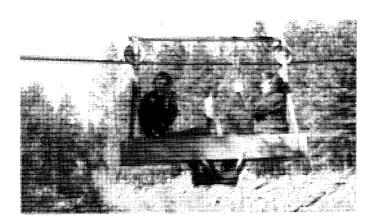


Sophomore students identify species during a Dendrology outing to Walnut Canyon (upper left). Juniors visit a controlled burn (upper right). Juniors visited Kaibab Industries mill (middle left). A frequent visitor to Northern Arizona (above). Enjoying the day during an outdoor class (left).

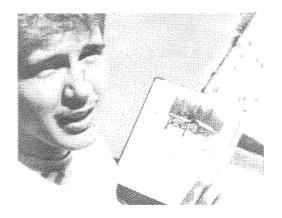
OUT IN THE FIELD













Semester "B" class hard at work (upper left). Seniors cruising Yellow Pines (upper right). Chris and Jim on their way to school (middle left). Living Semester "B" on the edge (upper middle). Enjoying a cold one around a North Rim campfire (left). Oh Boy! Pictures! (above).



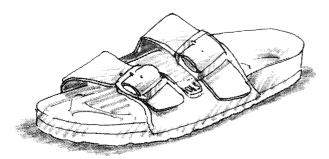
NORTHERN CRYOGENICS & WELDING SUPPLY

1000 E. Butler Ave.

Flagstaff, AZ 86001

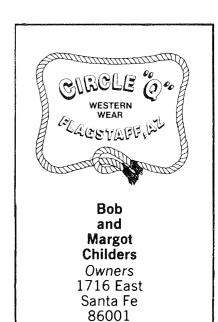
Phone (602) 779-4501 Serving the Logging Industry Since 1970

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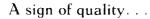
Discover how healthy and comfortable your feet can be in original Birkenstock footwear. And discover the fresh new look of Birkenstock — sandals and shoes in exciting new colors and styles.





(602) 774-4672



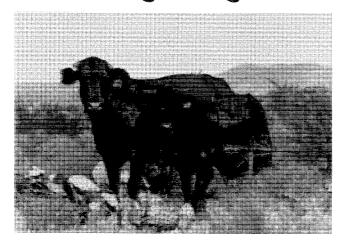


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Indian Rock Ranches



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David Chase, (602) 774-9115 114 N. San Francisco, Suite 100, Flagstaff, AZ 86001 Harvey Branigar, Bagdad Route, Prescott, AZ 86301 Wayne Word, Manager, (602) 442-3297



MESSAGE FROM THE EDITOR



"It is not the critic who counts; nor the man who points out how the strong man stumbled or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena; whose face is marred by dust and sweat and blood; who strives valiantly; who errs and comes short again and again; who knows the great enthusiasms, the great devotions, and spends himself in a worthy cause, who, at best, knows the triumph of high achievement; and who, at the worst, if he fails, at least he fails while daring greatly so that his place shall never be with those cold and timid souls who knew neither victory or defeat."

Theodore Roosevelt



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Hobby Craft

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Woodlands Village Centre (Walmart)



CHERYL FAULKNER

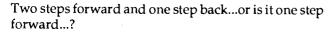
508 North Humphreys Flagstaff, AZ 86001 (602) 774-9104 (800) 952-9522

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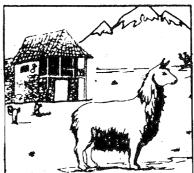


Not to worry, this happens everytime John hits his head on a log.





From the ANDES

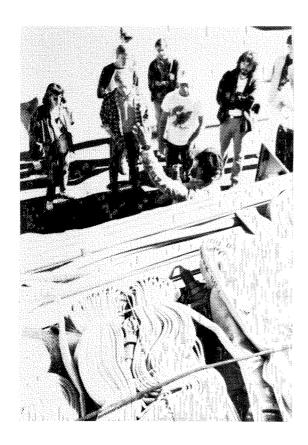


Fine South American Sweaters & Weavings

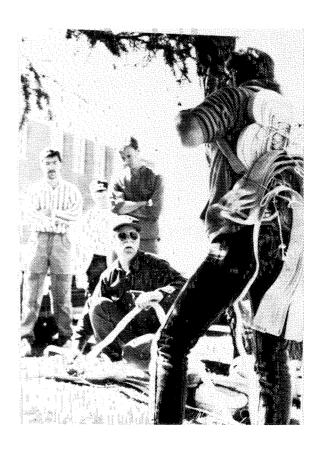
Guatamalen clothing shoulder bags and accessories

6 W. Santa Fe Downtown Flagstaff 779-2452

GETTING READY FOR FIRE SEASON



Members of the NAU School of Forestry fire crew listen intently during the S-190 fire training course.



Learning the finer points of a hose lay.

LAST LOOK



"...and to those behind the scenes, thanks for the support."
-page 36-



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...Take Out...

___ Italian Dinners ____

= PIZZA =

Lasagna • Manicotti • Spaghetti • Burgers • SandwichesDaily Specials

Satellite Sports • 7 Pool Tables • CD Juke Box Live Entertainment (No Cover)



