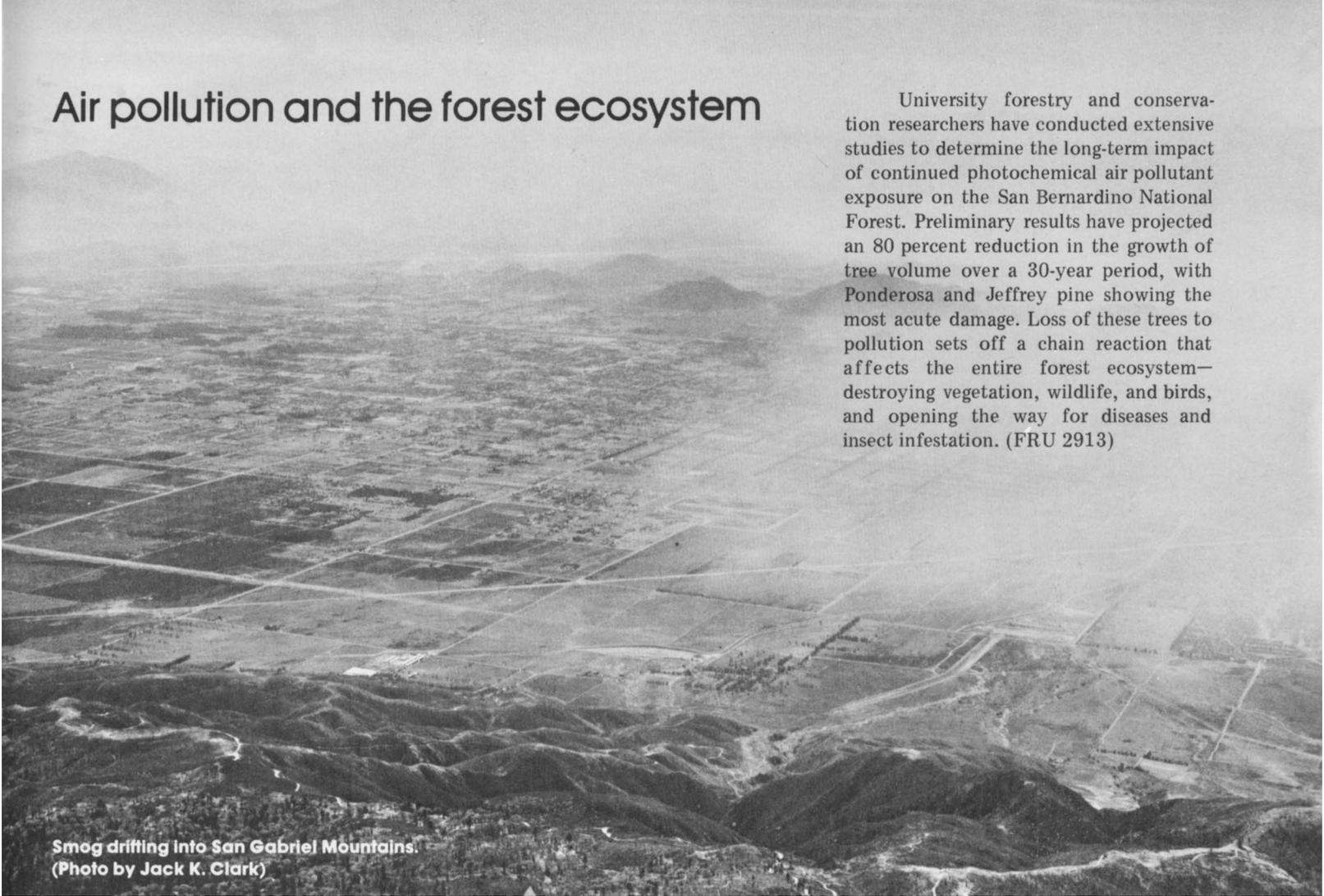


## Air pollution and the forest ecosystem

University forestry and conservation researchers have conducted extensive studies to determine the long-term impact of continued photochemical air pollutant exposure on the San Bernardino National Forest. Preliminary results have projected an 80 percent reduction in the growth of tree volume over a 30-year period, with Ponderosa and Jeffrey pine showing the most acute damage. Loss of these trees to pollution sets off a chain reaction that affects the entire forest ecosystem—destroying vegetation, wildlife, and birds, and opening the way for diseases and insect infestation. (FRU 2913)



Smog drifting into San Gabriel Mountains.  
(Photo by Jack K. Clark)

formation about a disease—such as Down's syndrome, commonly called mongolism); and public education. Genetic program trainees deal with counseling and public education.

Trained genetic advisors can provide a range of services including explaining the diagnosis and risk factors established for a family by a physician, advising the family on alternative courses of action to manage a potential or real genetic disorder, assisting the family in obtaining services from public or private agencies, and providing referral to other professionals.

### Causes and effects of obesity

Obesity is a major nutritional problem in the United States and most other affluent societies. The amount of time, energy, and money invested in prevention and treatment of this disease is overwhelming. The long-term effectiveness of obesity treatment is disastrously poor—

almost all patients return to their prior weight after one or two years. Nutritional researchers under the direction of S. Margen, U.C., Berkeley, are attacking the problem through a multi-faceted project that includes dietary modifications, attempts to change biases and attitudes toward foods, and increasing body awareness and movements. So far, this approach in working with groups of adults shows promise.

In related work by R. L. Huenemann, also at Berkeley, studies of environmental factors associated with the development of obesity in preschool children show that children who are obese at six years of age are likely to have been obese earlier in life, particularly between the ages of one and two years. Despite some earlier reports, breast feeding did not protect the six-year-olds from getting fat, nor did the time of introduction of solid foods into the baby's diet influence obesity development.

Children who regularly cleaned their plates were more likely to be fat than those whose intake varied from time

to time. This may indicate that children who follow their physiological demands are less likely to be fat than those who respond to environmental stimuli. Nevertheless, children who ate three structured meals a day, with or without snacks, were leaner than those with no meal patterns and continuous unplanned snacking. (NTS 3752-3778)

### Irrigation return flow and water pollution

The San Joaquin River is of tremendous importance to California's Central Valley. Extension specialists and other researchers have chosen that river to investigate in detail the influence of regional or adjacent soils and cultural practices on water quality.

The trend of increasing use of available water supplies continues. At the same time, more and more restrictions are made to protect water quality, and the spectrum of water use is broadening so