The results, therefore, indicate that different species of refractory animals differ widely in their responsiveness as antibody producers against this particular virus. Different members of the same species may also vary widely in this respect. Fairbrother and Morgan,[3] for example, have noted that the responsiveness of two horses "immunized" with poliomyelitis virus differed greatly, one producing a good viricidal serum, the other not responding at all.

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Occurrence of Infectious Myxomatosis in Southern California.

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During the summer of 1930 twelve reports from rabbitries in the regions of Santa Barbara, Ventura, and San Diego were made of a disease presenting the following symptoms. The rabbits were acutely ill and exhibited, as a rule, an oedematous condition in the regions of the nose and lips, the external genitalia and a conjunctivitis. A purulent discharge occurred from the eyes and nose. The ears also became greatly thickened and drooped as a rule. Animals that lived longer than a week or 10 days after the appearance of symptoms often developed nodules around the nose, eyes, or on the ears. Upon autopsy, the lymph nodes and spleen were found usually to be enlarged. The nodules and oedematous areas were found to contain a gelatinous material.

The disease was transmitted with facility by rubbing the discharge from the eyes and nose, or the extract from tissues, into the skin, or by injecting the same. Comparison of the above findings with reports of Hobbs,[1] Rivers[2] and others who have studied infectious myxomatosis produced by the South American virus shows striking similarities, the chief difference being that the disease encountered in California is not transmitted with as great ease by contact among experimental animals as is the South American disease. First attempts to transmit the disease by filtrates passed through

[3] Fairbrother and Morgan, *Brit. J. Exp. Path.*, 1930, **9**, 298.

[1] Hobbs, J. R., *Am. J. Hyg.*, 1928, **8**, 800.

[2] Rivers, T. M., *J. Exp. Med.*, 1930, **51**, 965.

medium Berkefeld filters were negative, but later attempts with coarser filters were positive.

Dr. Rivers has exchanged histopathological slides and virus and after studying our slides states: "From your sections there is good reason to suppose that the disease you are working with is the so-called infectious myxomatosis of rabbits."

Certain comparative experiments of the California strain with the South American strain provided by Dr. Rivers are recorded in Table I.

TABLE I.

	California Strain		South American Strain	
Aver. incubation period	7 days		5½ days	
Aver. days living after appearance of symptoms	5 "		3½ "	
Contact Experiments	+ 4	— 6	+ 10	— 0
Filtration Experiments	Berkefeld Coarse V: + 5 / — 6	Berkefeld Medium N: + 1 / — 12	Berkefeld Coarse V: + 4 / — 0	Berkefeld Medium N: + 0 / — 4

From this table it is seen that the average incubation period of the South American strain is 5½ days as compared with 7 days for the California strain. The average length of life after the appearance of symptoms is 3½ days in the South American strain and 5 days in the California strain. These data combined with the fact that the South American strain is transmitted with greater ease by contact than the California strain indicate that at present the California strain of virus exhibits a lower degree of virulence than the South American strain provided by Dr. Rivers. It should be remembered, however, that this South American strain has been repeatedly passed through experimental animals since being brought to the United States and its virulence may thereby have been increased. The filtration experiments indicate that the California strain of virus possesses approximately the same filter passing power as the South American strain.

All animals encountered to date in this study, whether naturally or experimentally infected, have died.

Our findings indicate that infectious myxomatosis has been encountered in a natural outbreak in Southern California, which is its first natural appearance outside of South America.