

ISOLATION OF SOLDADO VIRUS FROM A SEABIRD (*RISSA TRIDACTYLA* L.)  
IN FRANCE

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About 50 arboviruses or variants have been so far isolated from ticks infesting seabirds worldwide and several serosurveys proved most of these viruses actually infect birds (1, 2). However, tick-borne viruses were exceptionnally isolated from the tissues of seabirds.

During virological and parasitological surveillance of kittiwake (*R. tridactyla*) colonies in Brittany from 1977 to 1986 (3) a number of chicks died with heavy infestation by both *Ornithodoros* (A.) *maritimus* and *Ixodes* (C.) *uriae* ticks but no virus was isolated from their tissues. Accordingly we have concluded that tick parasitism alone may represent the main negative factor for chick's health and dynamics population of kittiwake (4).

At the Cap Sizun reserve, young kittiwake K5, 24 days old, was found ill by July 13 and died July 14, 1987. From the chick, 730 engorged larvae and one male *O. maritimus* were collected and virologically studied in 5 pools. Suckling mice (sm) and Vero cells were used throughout for virus isolations. Three pools of larvae yielded Soldado virus (T 2029 T 2030, T 2031) and these strains were found belonging to the "Old world" variant of this virus (5). The chick was preserved frozen at  $-40^{\circ}\text{C}$  in the Cap Sizun reserve until August 1988, i.e. during more than a year, when it was thawed and specimens of blood, brain, liver and heart were collected together with 100 more *O. maritimus* larvae and 3 *I. uriae* nymphs. All these specimens were processed for virus studies.

No virus was isolated from ticks but a strain of Soldado virus, "Old world" variant, (AN 673) was isolated from the brain exhibiting a low pathogenicity for sm. Histological sections of tissues including brain showed no lesion that those due to the thawing. Negative results from other tissues may be explainable by their long preservation at an unsuitable temperature ( $-40^{\circ}\text{C}$ ).

This represents the first isolation of Soldado virus from a seabird and throws again the discussion about the respective part of organochlorines, ectoparasitism and virus infections in the behavioral disorders observed among seabird colonies where Soldado virus is actively circulating during the breeding season (6, 2).

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## References

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