

## DONNÉES SUR LA CIGUATERA A NOUMÉA

### KNOWLEDGES ON CIGUATERA IN NOUMEA (NEW-CALEDONIA)

By D. LAURENT (\*), P. JOANNOT (\*\*), P. AMADE (\*), P. MAESSE (\*\*\*) & B. COLMET-DAAGE (\*\*\*)

An investigation on ciguatera was performed in March 1992 on a sample of 500 persons which are representative of the city of Noumea. The quotas method was used taking into account sex, ethnic group, age (10 years old and above) and socio-professional status.

The first part of the questionnaire about the characteristics of the people sample indicates that 124 (nearly 25 %) were intoxicated at least once. This percentage varies according to the ethnic groups with 44 % among Polynesians, 34.1 % among Asians, 24.2 % among Europeans, 23.3 % among Melanesians and 18 % among Wallisians. According to the April 1989 census, the population of the city (not including the children below 10 years of age) was 79,167. It is therefore possible to estimate that 20,000 persons were affected by this intoxication.

It was also found that people who are not native from New Caledonia or who have been living there less than 10 years are more cautious. They buy fish (66 % vs 44 % for natives) rather than fishing it (16 % vs 39 %). They consume fish at times (62 vs 33 %) rather than regularly (38 % vs 57 %) and they are less affected by ciguatera poisoning (10 % vs 30 %).

The incriminated species of fishes are in 90 % of the cases carnivorous, Serranidae 43 % (grouper, coral trout), Lethrinidae 13 % (sprangled emperor, bream, sweetlip), Scombridae 13 % (spanish maquerel), Lutjanidae 11 % (redbass, hussard), Carangidae 3 % (nevalies) or Haemulidae 3 % (morwong) and only 6 % of herbivorous fishes of the Scaridae family (parrot fish).

In the second part of the questionnaire figured 12 questions, 4 of which were about general knowledge (scientific name, toxinogenous organism, geographical location and ecological factor), 6 were about

practical aspects (most toxic fishes and parts of fish, time of the year, detection, detoxification and symptom), one was about learning processes, and one about kind of cure.

The average mark for the first 10 questions is 3.6. It varies according to the ethnic group, ranging from 4.55 for European to 2.66 for Wallisian, with values of 3.93 for Asian, 3.32 for Polynesian and 2.74 for Melanesian. For high school students (10 to 19 years old), the average was 2.45 thus indicating the need for an education at school on this matter.

By associating the answers to the questions about general knowledge with those about practical matter, it is possible to differentiate the various ethnic groups. Thus, Melanesians and Polynesians would privilege practical questions, whereas Europeans and to a lesser extent Asians would be equally interested by the two kinds of questions and Wallisians would be the least informed with the exception of a few individuals.

This questionnaire has also pointed out the preconceived ideas common in New Caledonia. For instance, 60 % of the people sampled believe that ciguatera or rather the ciguatera season occurs during the coral bloom (« corail en fleurs ») (actually, no such bloom exists). Only 12 % answered that ciguatera may occur at any time of the year. Another strong belief is indicated by the fact that 43 % think that ants can detect toxic fish.

Fifty-three percent of the people know the specific symptom of this intoxication, this percentage reaching 70 % among people having experienced this poisoning.

The use of traditional cures among natives is appreciable. It reaches 56 % among Melanesians, 44 % for Polynesians and respectively 36, 29 and 29% for Asians, Melanesians and Europeans. The preferred medicine is *Argusia argentea* (« faux tabax ») for 40 % of people.

This work was supported with grant from INSERM and CORDET.

O.R.S.T.O.M. Fonds Documentaire

N° : 38 351 ex 1

Cpte : 0

17 NOV. 1993

PM 79

(\*) ORSTOM, BP A5, Nouméa, Nouvelle-Calédonie.  
(\*\*) Aquarium de Nouméa, BP 395, Nouméa, Nouvelle-Calédonie.  
(\*\*\*) Institut Territorial de la Statistique et des Études Économiques, BP 823, Nouméa, Nouvelle-Calédonie.