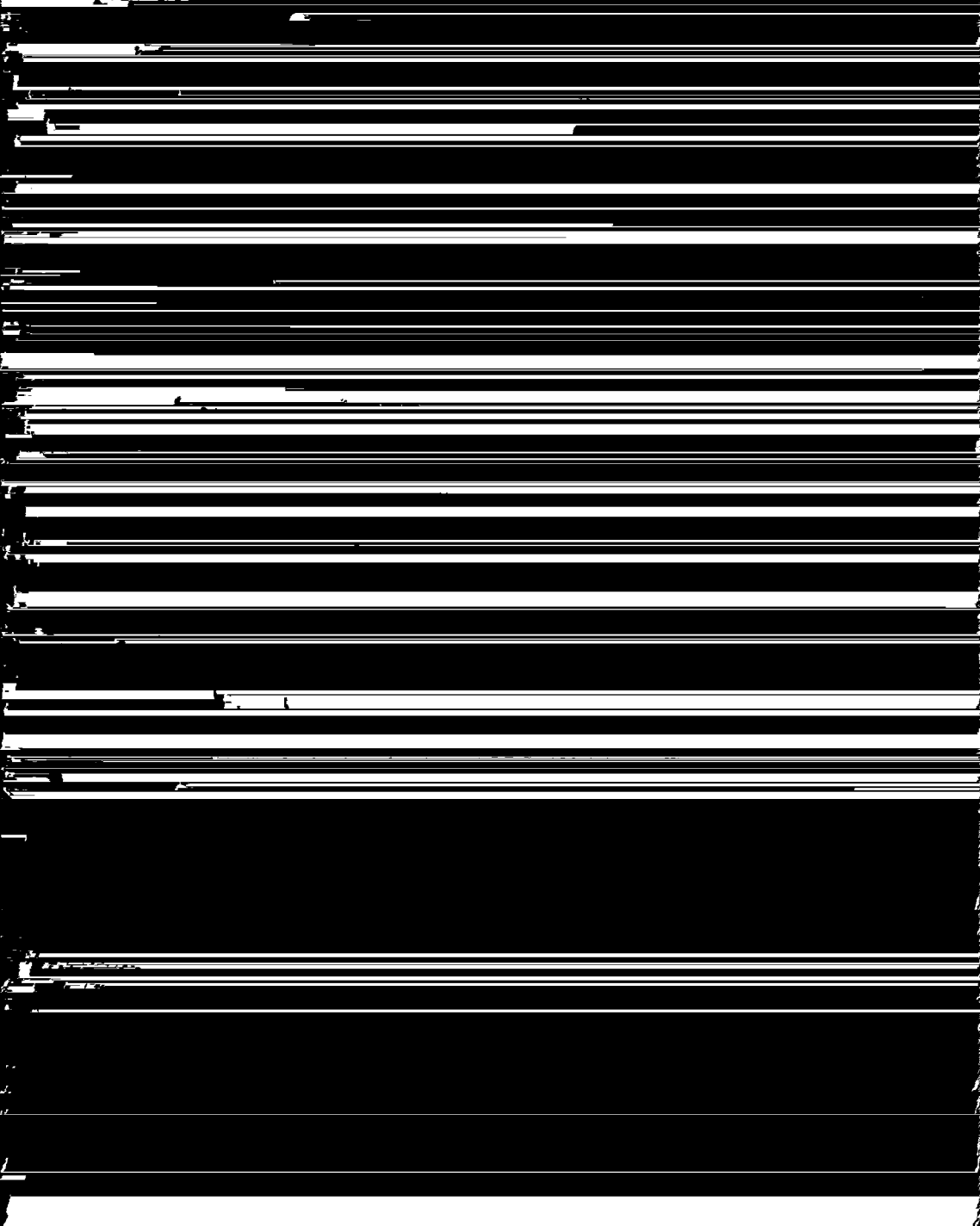


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**Estimating nutrients recycling by tropical oceanic macroplankton-  
microplankton from biomass data**      ORSTOM Fonds Documentaire



daytime and superficial night-time biotopes of these organisms in tropical waters, with the aim of approximating a mean situation over 24 h. Only one animal was placed in each flask, which was then closed with aluminium foil. No food was given so that the measured excretion results from the catabolism of natural food. Examinations of stomach contents indicated that most animals were actively feeding during the first half of the night.

After a mean incubation time of 17.30 hours (15.30–18.30 hours depending on experiments), a sample of water was taken from each flask and passed through 10- $\mu$ m mesh in order to remove large particles. Part of the water sample was

**Table I.** Summarized results on biomass and excretion of N and P for the main taxa of tropical macroplankton-micronekton

Taxa	Area <sup>a</sup>	No. of excretion experiments	Biomass dry weight (mg m <sup>-2</sup> )	Excretion rates for N (μg at mg <sup>-1</sup> day <sup>-1</sup> )	Quantities of N recycled (μg at m <sup>-2</sup> day <sup>-1</sup> )	Excretion rates for P (μg at mg <sup>-1</sup> day <sup>-1</sup> )	Quantities of P recycled (μg at m <sup>-2</sup> day <sup>-1</sup> )
Euphausiids	A	73	62.8	0.38	23.9	0.031	1.95
	P	132	78.7	0.30	23.6	0.043	3.38
Sergestids	A	66	19.8	0.26	5.1	0.020	0.40
	P	50	15.5	0.26	4.0	0.025	0.39
Peneids	A	18	15.8	0.41	6.5	0.035	0.55
	P	4	5.9	0.24	1.4	0.034	0.20
Carids	A	7	32.3	0.24	7.8	0.021	0.68
	P	14	20.2	0.14	2.8	0.025	0.51

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nitrogen and phosphorus excreted by the whole macroplankton-micronekton (0.5-10 cm) amount to only 5-10% of that recycled by the meso-zooplankton