

LEAGUE OF NATIONS

C.H./Malaria/277.

Geneva, August 24th, 1939.

HEALTH ORGANISATION

MALARIA COMMISSION

The Secretariat of the Malaria Commission submits herewith a contribution received in connection with the problem of the bionomics of anophelines and their geographical distribution recommended for investigation by the Reporting Committee at its meeting in October 1937.

CHART OF THE RACIAL DISTRIBUTION OF ANOPHELES MACULIPENNIS IN ROUMANIA.

Preliminary note by

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In a previous memorandum one of the present authors gave a general survey* of the distribution of races of Anopheles maculipennis in Roumania in relation to the main channels of distribution of endemic malaria. The present note provisionally completes the first with a chart of that distribution. As it is solely concerned with the graphic representation of capture-posts, no attention is paid at this stage to spontaneous anopheline infection, which will be dealt with later.

The table of figures which accompanies the chart is similar to that given on page 219 of the earlier memorandum, except for the addition of a few new capture-posts which have been established in the interval.

The total number of capture-posts in all parts of the country is 220, and the number of batches inspected since 1933 is 72,422 in all. As the table shows, these hatchings can be classified as follows:

<u>A.m. typicus</u>	3,884	batches
<u>A.m. messeae</u>	30,407	"
<u>A.m. atroparvus</u>	34,967	"
<u>A.m. elutus</u>	3,038	
<u>Variant forms</u>	126	
Total	72,422	"

At the outset of our studies we isolated 30 mosquitoes, but this figure was later raised to 50 and subsequently in some stations to 150, 200 and even 300 individuals for a single inspection. Only when the total number of mosquitoes in all the habitats of a given place was exceedingly small were we content with a few isolations. In such cases the number of individuals isolated represents the total number of anopheles we were able to find and capture.

* ZOTTA, G.: - Contribution à l'étude de la distribution des races d'Anopheles maculipennis en rapport avec les grandes lignes de répartition de paludisme en Roumanie (Arch. roum. de Pathol. expérim. et de microbiologie, Vol.XI, No.2. June 1938, pp.209-246.

As a rule the mosquitoes inspected came from stables, byres, pig-sties and other animal shelters. Little of our material was collected from human dwellings, and that was secured in certain stations on the Black Sea coast; it will be studied later.

All captures were made during the period of optimum anopheline activity, i.e. from May or June to September. In certain places when special observations were made, e.g. at Comana and Branesti, the data were frequently collected weekly without interruption throughout the year. In those cases we were able to plot curves showing seasonal and annual variations in the racial equation for several consecutive years; a study of these curves is now in course of preparation.

Details regarding the several races have already been given in Zotta's memorandum and need not be repeated here. As that memorandum shows, we found in Roumania no examples of labranchiae or melanoon. As regards the four races found, three (typicus, messeae and atroparvus) are present throughout the country, either in exclusive or semi-exclusive colonies or in mixed colonies, as has already been explained; elutus alone is geographically confined, namely on the Black Sea coastal belt.*

As for the relationship between races of anopheles and malarial incidence, it has already been shown that, apart from infections caused by elutus, allowance must be made for malaria zones due to messeae in the Danubian flood areas and in the valleys of the Nustrul, Pruth, and elsewhere. Atroparvus, on the other hand, plays a twofold rôle: during the height of the epidemic period it plays an active part in the transmission of malaria; but it must also be regarded as of considerable importance in the slow-incubating form of malaria through the agency of autumnal and post-autumnal infection.

For that reason we have laid more stress (Zotta, loc. cit.) on that particular race and the importance of its presence within the continent of Europe. This must be all the more true in that, in the light of the autumn and winter segregation of atroparvus in domestic and farm buildings, as of the concentration of spontaneous infection of mosquitoes towards the autumn (due to increased longevity at that season), all the material conditions governing infection of humans are then met.

The table of figures attached to this complementary note covers the 220 capture-posts. On the chart, each post is shown under its serial number.

The chart shows the percentage for each year for the whole period since 1933. Where observations have been made for several consecutive years, the figures have been combined into a single index, and the percentages are based upon these totals, representing several years.

The data given here will be examined more fully in a memorandum now being prepared for early publication.

* Since Zotta's article was written we have discovered elutus colonies much further north from Mamaia, e.g. at Baia and Ciamurlia de Jos on the shores of Lake Razelm, 60 and 80 km. respectively from the last post on Mamaia; this we had foreseen.

TABLEAU DES RACES D'ANOPHELES MACULIPENNIS EN ROUMANIE
POUR LES ANNEES 1933-1939(1) p.p.

TABLE OF ANOPHELES MACULIPENNIS RACES IN ROUMANIA
1933-1939(1).

N° cor.	Localité	Année de la récol- te Year of capture	Nombre de pon- tes étu- diées N° of batches studied	R a c e s				Formes aber- rantes Vari- ant forms
				Typi- cus	Mes- seae	Atro- parvus	Elu- tus	
Serial Number	Place	Year of capture	N° of batches studied	(5)	(6)	(7)	(8)	(9)
	<u>Dép. Balti</u> <u>Dept. of Balti</u>							
1.	Elisaveta	1938	39	0	28	10	0	1
2.	Biliceni	"	41	1	9	31	0	0
3.	Copaceni	"	40	8	9	23	0	0
	<u>Dép. Orhei</u> <u>Dept. of Orhei</u>							
4.	Sarateni	1938	43	7	12	24	0	0
	<u>Dép. Lapusna</u> <u>Dept. of Lapusna</u>							
5.	Sîngera	1938	12	6	4	2	0	0
6.	Vistirniceni	"	89	51	8	30	0	0
7.	Chirca	"	36	23	8	5	0	0
	<u>Dép. Tighina</u> <u>Dept. of Tighina</u>							
8.	Bulgoaca	1938	56	2	48	7	0	0
9.	Telita	"	12	2	10	0	0	0
10.	Chitcani	"	35	6	29	0	0	0
11.	Copanca	"	68	2	66	0	0	0
12.	Cirnateni	"	54	0	54	0	0	0
	<u>Dép. Botosani</u> <u>Dept. of Botosani</u>							
13.	Costesti	1933	16	9	5	2	0	0
14.	Curtesti	1937	31	0	0	30	0	0
15.	Minastireni	"	11	0	2	9	0	0
16.	Soroceni	"	8	1	1	6	0	0
17.	Unteni	"	11	1	0	10	0	0
	<u>Dép. Iasi</u> <u>Dept. of Iasi</u>							
18.	Cristesti	1933	20	1	18	1	0	0
19.	Prisacani	"	55	2	52	1	0	0
		Report Forward :	677	122	363	191	0	1

(1) Le matériel de l'année 1933 provient, pour la plus grande partie, des recherches faites avec Martini en 1933 : Martini et Zotta: C.H./Malaria/218. Tout le reste concernant les années 1934, 1935, 1936-1939 représente des recherches personnelles et inédites.

(1) The data for 1933 are largely taken from the research carried out with Martini in 1933 : Martini & Zotta : C.H./Malaria/218. All the remaining material for 1934, 1935 and 1936-39 is the result of personal unpublished research work.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Report :	677	122	363	191	0	1
		Forward :						
	<u>Dép. Iasi(suite)</u> <u>Dept. of Iasi(cont).</u>							
20.	Costuleni	1933	29	8	21	0	0	0
21.	Ossoi	"	60	15	45	0	0	0
22.	Tomesti	"	39	7	32	0	0	0
	"	1934	39	1	37	1	0	0
23.	Poeni	1933	32	28	4	0	0	0
	"	1934	100	64	34	2	0	0
24.	Iasi	"	5	0	3	2	0	0
25.	Socola	1933	70	68	1	1	0	0
26.	Macaresti	"	2	0	2	0	0	0
27.	Manisali	"	18	17	1	0	0	0
28.	Podul Iloaiei	"	37	23	1	13	0	0
29.	Hodora	"	52	40	1	11	0	0
	<u>Dép. Vaslui.</u> <u>Dept. of Vaslui.</u>							
30.	Vaslui	1936	50	9	34	7	0	0
	"	1937	19	17	2	0	0	0
31.	Codăiesti	"	28	21	2	5	0	0
32.	Solesti	"	11	9	2	0	0	0
33.	Moara Grecilor	"	15	15	0	0	0	0
34.	Rediu	"	4	4	0	0	0	0
35.	Stefan cel Mare	"	50	47	0	3	0	0
	<u>Dép. Tutova.</u> <u>Dept. of Tutova.</u>							
36.	Simila	1938	60	34	12	14	0	0
37.	Canton între B. si Sarbi	"	5	4	1	0	0	0
38.	Sarbi	"	112	54	44	14	0	0
39.	Zorleni	"	9	2	6	1	0	0
40.	Ghidigeni	"	49	8	29	12	0	0
41.	Crivesti	"	56	28	25	3	0	0
42.	Puesti	"	51	48	1	2	0	0
43.	Pogana	"	67	61	3	3	0	0
	<u>Dép. Covurlui.</u> <u>Dept. of Covurlui.</u>							
44.	Frumusita	1933	41	3	34	4	0	0
45.	Tulucesti	"	47	0	46	1	0	0
	"	1936	269	1	268	0	0	0
46.	Oancea	1933	90	2	88	0	0	0
	"	1936	51	0	51	0	0	0
47.	Vladesti	1936	83	3	80	0	0	0
48.	Foltesti	"	171	9	160	2	0	0
49.	Sivita	"	104	2	102	0	0	0
		Report :	2.602	774	1.535	292	0	1
		Forward :						

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Report :						
		Forward :	2.602	774	1.535	292	0	1
	<u>Dép. Putna.</u> <u>Dept. of Putna.</u>							
50.	Namoloasa	1936	60	0	3	57	0	0
51.	Fierbinti	"	95	6	17	72	0	0
52.	Nanesti	"	88	0	9	79	0	0
	<u>Dép. R. Sarat.</u> <u>Dept. of R. Sarat.</u>							
53.	Giirlau	1936	106	0	51	55	0	0
54.	Drogu	"	49	0	21	28	0	0
55.	Ciineni	"	39	0	7	32	0	0
56.	Amara	"	152	0	25	127	0	0
57.	Balta Alba	"	44	0	7	37	0	0
58.	Baile	"	22	2	3	17	0	0
	<u>Dép. Jalomita.</u> <u>Dept. of Jalomita.</u>							
59.	Ciocanesti	1936	57	1	51	5	0	0
60.	Dorobantu	"	44	0	32	12	0	0
61.	Ulmu	"	19	0	8	11	0	0
62.	Rasa	"	60	0	31	29	0	0
63.	Chirnogi	"	25	2	1	22	0	0
	<u>Dép. Ilfov.</u> <u>Dept. of Ilfov.</u>							
64.	Brincoveni	1933	17	0	17	0	0	0
65.	Sarulesti	"	25	0	24	1	0	0
66.	Obilesti	"	67	0	63	4	0	0
67.	Ulmeni	"	11	1	10	0	0	0
68.	Preasna	"	16	0	13	3	0	0
69.	Suliman	"	22	0	12	10	0	0
70.	Gurbanesti	"	66	1	52	13	0	0
	"	1934	32	2	4	26	0	0
71.	Baneasa	1934	2	1	0	1	0	0
72.	Branesti	1933	299	31	217	51	0	0
	"	1934	6.951	259	4.022	2.670	0	0
	"	1935	12.125	358	2.378	9389	0	0
	"	1936	9.724	296	2.683	6.699	0	46
	"	1937	1.602	25	931	644	0	2
	"	1938	1.035	39	233	750	0	13
73.	Pasarea	1938	170	7	145	18	0	0
74.	Cotofanca	1934	210	2	108	100	0	0
75.	Ciofliceni	1933	106	1	101	4	0	0
76.	Chirnogi	"	17	0	17	0	0	0
77.	Ciurel	1935	52	19	26	7	0	0
	<u>Dép. Dâmbovita.</u> <u>Dept. of Dambovita.</u>							
78.	Dragomiresti	1938	24	24	0	0	0	0
		Report :						
		Forward :	36.035	1.851	12.857	21.265	0	62

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Report Forward	36035	1851	12857	21265	0	62
	<u>Dép. Vlasca</u> <u>Dep. of Vlasca</u>							
79.	Naipu	1933	28	0	19	9	0	0
80.	Ghimpati	1933	56	2	53	1	0	0
81.	Asan-Aga	1933	51	2	37	12	0	0
	"	1934	242	5	137	100	0	0
82.	Draganesti	1933	34	1	8	25	0	0
83.	Meletie	1933	69	2	67	0	0	0
84.	Pueni	1933	45	0	45	0	0	0
85.	Comana	1933	38	5	30	3	0	0
	"	1934	1526	19	1440	67	0	0
	"	1935	3713	132	3247	334	0	0
	"	1936	3724	153	3291	280	0	0
	"	1937	317	9	273	35	0	0
	"	1938	603	30	555	18	0	0
86.	Giurgiu	1934	45	7	32	6	0	0
87.	Arsachi	1934	26	0	19	7	0	0
88.	Gostinul	1934	2	0	1	1	0	0
89.	Gogosari	1934	32	0	2	30	0	0
90.	Draghiceanu	1934	9	1	1	7	0	0
91.	Ralesti	1934	29	0	1	28	0	0
92.	Cacaleti	1934	14	0	3	11	0	0
93.	Pingalesti	1934	20	1	12	7	0	0
		1934	43	5	25	13	0	0
94.	Camineasca	1935	86	10	13	63	0	0
95.	Mihai Bravu	1935	45	4	37	4	0	0
	<u>Dép. Teleorman</u> <u>Dep. of Teleorman</u>							
96.	Salcea	1933	15	12	3	0	0	0
97.	Draganesti	1934	70	0	61	9	0	0
98.	Zimnicea	1934	123	0	123	0	0	0
99.	Lita-Odaia	1934	162	15	103	44	0	0
100.	Lita	1935	35	9	6	20	0	0
101.	Zlata	1934	115	17	85	13	0	0
102.	Rîioasa-Olteanca	1934	81	18	57	6	0	0
103.	Piatra	1934	13	1	10	2	0	0
104.	Vîinatori	1938	21	1	8	7	0	5
105.	Cioara	1938	12	1	3	4	0	4
	<u>Dép. Romanati</u> <u>Dep. of Romanati</u>							
106.	Bals	1938	56	25	31	0	0	0
107.	Osica de Sus	1938	36	15	20	1	0	0
108.	Stoenesti	1938	29	27	1	1	0	0
109.	Izbiceni	1938	16	3	9	4	0	0
	<u>Dép. Dolj.</u> <u>Dep. of Dolj.</u>							
110.	Rojiste	1935	48	21	1	26	0	0
111.	Sadova	1935	8	1	3	4	0	0
112.	Segarcea	1934	66	11	52	3	0	0
	Report Forward		47738	2416	22781	22470	0	71

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Report Forward	47738	2416	22781	22470	0	71
	<u>Dép. Timis</u> <u>Dep. of Timis</u>							
113.	Uliuc	1938	26	10	13	3	0	0
114.	Cheveresul Mare	"	36	33	2	1	0	0
115.	Buzias	"	25	21	2	2	0	0
116.	Sinersig	"	33	28	1	4	0	0
117.	Chisatau	"	37	24	12	0	0	1
118.	Susstra	"	37	35	1	1	0	0
119.	Izvin	"	48	6	5	37	0	0
120.	Remetea Mare	"	31	8	22	1	0	0
121.	Jebel	"	25	5	10	10	0	0
122.	Liebling	"	18	9	2	7	0	0
123.	Denta	"	35	11	4	20	0	0
124.	Ciacova	"	36	5	26	5	0	0
125.	Rudna	"	34	0	26	8	0	0
126.	Checea	"	16	1	3	12	0	0
	<u>Dép. Arad</u> <u>Dep. of Arad</u>							
127.	Nadab	1938	34	9	13	12	0	0
128.	Sepreus	"	40	19	11	10	0	0
129.	Cermeiu	"	50	48	2	0	0	0
130.	Gurba	"	28	17	2	8	0	0
131.	Sicula	"	32	21	7	4	0	0
132.	Ineu	"	71	18	52	1	0	0
133.	Vîrfurile	"	30	28	0	2	0	0
134.	Pescari	"	29	20	2	7	0	0
135.	Maderat	"	32	17	9	6	0	0
136.	Târnova	"	29	20	2	7	0	0
	<u>Dép. Bihor</u> <u>Dep. of Bihor</u>							
137.	Bucium	1937	31	29	1	1	0	0
138.	Dusesti	"	34	30	2	2	0	0
139.	Sîmbata	"	27	14	13	0	0	0
140.	Rabagani	"	31	25	6	0	0	0
141.	Pocola	"	30	29	0	1	0	0
142.	Sudrigiu	"	21	21	0	0	0	0
143.	Negru	"	37	37	0	0	0	0
144.	Gurani	"	41	40	1	0	0	0
145.	Pietroasa	"	27	27	0	0	0	0
146.	Forosig	"	35	35	0	0	0	0
	<u>Dép. Satu Mare</u> <u>Dep. of Satu Mare</u>							
147.	Lazuri	1937	27	14	13	0	0	0
148.	Bercu	"	38	11	27	0	0	0
149.	Paulesti	"	31	12	17	2	0	0
150.	Culciul Mare	"	29	9	18	2	0	0
		Report : Forward:	48989	3162	23109	22646	0	72

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Report: Forward:	48.989	3.162	23.109	22.646	0	72
	<u>Dép. Satu-Mare</u> (suite)							
	<u>Dept. of Satu-Maru</u> (cont.)							
151.	Amat	1937	27	15	10	2	0	0
152.	Moftinul Mic	"	37	13	22	1	0	1
153.	Colonia Paulian	"	42	12	27	3	0	0
	<u>Dép. Tulcea</u> <u>Dept. of Tulcea</u>							
154.	Jijila	1933	40	0	40	0	0	0
155.	Vacareni	"	22	0	22	0	0	0
156.	Luncavita	"	46	0	46	0	0	0
157.	Isaccea	"	43	0	43	0	0	0
158.	Somova	"	49	0	49	0	0	0
159.	Ciatalchoi, Lascar Catargi	"	46	0	46	0	0	0
160.	Patlageanca	"	53	0	22	31	0	0
	"	1934	45	0	43	2	0	0
161.	Milla 23	1933	40	0	40	0	0	0
162.	Sulina	1933	143	0	143	0	0	0
	"	1934	5	0	4	1	0	0
163.	Cordon	1933	55	0	55	0	0	0
164.	Sfistofca	"	21	0	20	1	0	0
165.	Letea	"	87	0	87	0	0	0
166.	Rosetti	"	32	0	32	0	0	0
167.	Saint-Georges	"	114	0	97	17	0	0
168.	Tulcea	1934	14	0	14	0	0	0
	<u>Dép. Constanta</u> <u>Dept. of Constanta</u>							
169.	Constanta (Tabacarie)	1933	27	1	7	19	0	0
170.	Racari	"	10	1	0	4	5	0
171.	Navodari	1933	26	0	0	26	0	0
	"	1934	103	0	2	101	0	0
172.	Limanul	1934	68	0	0	68	0	0
	"	1935	133	3	2	128	0	0
173.	2 Mai	1934	9	0	0	9	0	0
	"	1937	40	0	2	37	0	1
174.	Urluchioiu	1933	24	7	0	17	0	0
	"	1934	8	0	0	8	0	0
	"	1935	41	2	0	25	14	0
	"	1937	83	6	13	48	16	0
	"	1938	445	36	40	355	13	1
175.	Mamaia	1933	10	1	6	3	0	0
	"	1934	188	0	14	174	0	0
	"	1935	92	0	27	65	0	0
	"	1937	854	5	447	376	26	0
	"	1938	377	1	76	275	25	0

Report : 52.498 3.265 24.617 24.442 99 75
Forward:

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Report Forward	52498	3265	24617	24442	99	75
	<u>Dép. Constanta</u> (suite)							
	<u>Dep. of Constanta</u> (cont.)							
176	Domnita Elena (Tatlageacu)	1934	34	0	0	34	0	0
	"	1937	116	8	7	9	92	0
	"	1938	341	11	35	62	233	0
177	Mamaia Gradinariii	1937	914	9	536	163	206	0
	"	1938	633	5	104	141	383	0
178	Tekirghiol	1933	17	0	1	16	0	0
	"	1934	17	0	0	17	0	0
	"	1935	393	21	27	265	80	0
	"	1936	598	7	122	435	21	13
	"	1937	670	26	302	331	9	2
	"	1938	812	28	294	481	3	6
179	Mangalia oras	1934	23	0	0	23	0	0
	"	1935	542	6	74	371	91	0
	"	1936	1386	13	79	1272	22	0
	"	1937	751	15	76	591	64	5
	"	1938	389	8	75	294	12	0
180	Mangalia Gradinariii	1937	729	16	47	79	587	0
	"	1938	465	53	125	217	70	0
181	Herghelia	1935	401	21	100	146	134	0
	"	1937	916	16	157	453	289	1
	"	1938	522	40	172	290	20	0
182	Herghelia- Gradinariii	1936	811	16	57	700	37	1
183	Tuzla	1934	11	0	1	10	0	0
	"	1935	161	5	9	124	23	0
	"	1936	92	1	14	74	3	0
	"	1937	131	2	49	73	5	2
	"	1938	191	1	18	168	1	3
184	Agigea	1934	31	0	2	29	0	0
	"	1935	827	9	13	413	392	0
	"	1936	1573	44	138	1282	105	4
	"	1937	426	25	175	220	5	0
	"	1938	998	34	657	267	34	6
185	Biruinta	1935	34	0	0	34	0	0
186	Ovidiu	1935	25	0	0	25	0	0
187	Eforia	1936	292	4	177	111	0	0
	"	1937	552	12	386	153	0	1
	"	1938	943	18	741	179	3	2
188	Medgidia	1936	116	0	1	115	0	0
189	Topalu	1936	32	0	32	0	0	0
190	Dunarea	1936	46	1	45	0	0	0
		Report Forward	70459	3740	29466	34109	3023	121

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Report Forward	70459	3740	29466	34109	3023	121
	<u>Dép. Constanta</u> (suite)							
	<u>Dep. of Constanta</u> (cont.)							
191	Oltina	1936	42	0	38	4	0	0
192	Mirleanu	"	14	0	0	14	0	0
193	Aliman	"	13	0	1	12	0	0
194	Rasova	"	19	0	5	14	0	0
195	Cochirleni	"	14	0	0	14	0	0
196	Baia	"	59	2	8	49	0	0
198	Costinesti &							
199	Schitul	1938	543	15	51	458	15	4
	<u>Dép. Durostor</u> <u>Dep. of Durostor</u>							
200	Gârlita	1934	196	6	186	4	0	0
201	Aidemir	1938	29	1	28	0	0	1
	<u>Dép. Balti</u> <u>Dep. of Balti</u>							
202	I.C. Bratianu	1939	25	0	0	25	0	0
203	Pravila de Sus	"	64	0	1	63	0	0
204	Strâmba	"	24	0	0	24	0	0
205	Marandeni	"	3	0	0	3	0	0
	<u>Dép. Ilfov.</u> <u>Dep. of Ilfov.</u>							
206	Balteni	1939	109	25	84	0	0	0
207	Vasilati	"	140	34	83	23	0	0
208	Buciumeni	"	93	24	50	19	0	0
209	Gruiu	"	125	31	81	13	0	0
	<u>Dép. Braila</u> <u>Dep. of Braila</u>							
210	Lacul Sarat	1939	11	0	11	0	0	0
211	Gropeni	"	35	0	35	0	0	0
212	Viziru	"	31	0	31	0	0	0
213	Insuratei	"	24	2	16	6	0	0
214	Jugureanu	"	79	1	12	66	0	0
215	Surdila-Greci	"	15	1	2	12	0	0
216	Ianca	"	40	1	31	8	0	0
217	Sutesti	"	16	1	11	3	0	0
218	Movila-Miresei	"	38	0	15	23	0	0
219	Cotu Lung	"	68	0	67	1	0	0
220	Vadeni	"	94	0	94	0	0	0
			72422	3884	30407	34967	3038	126

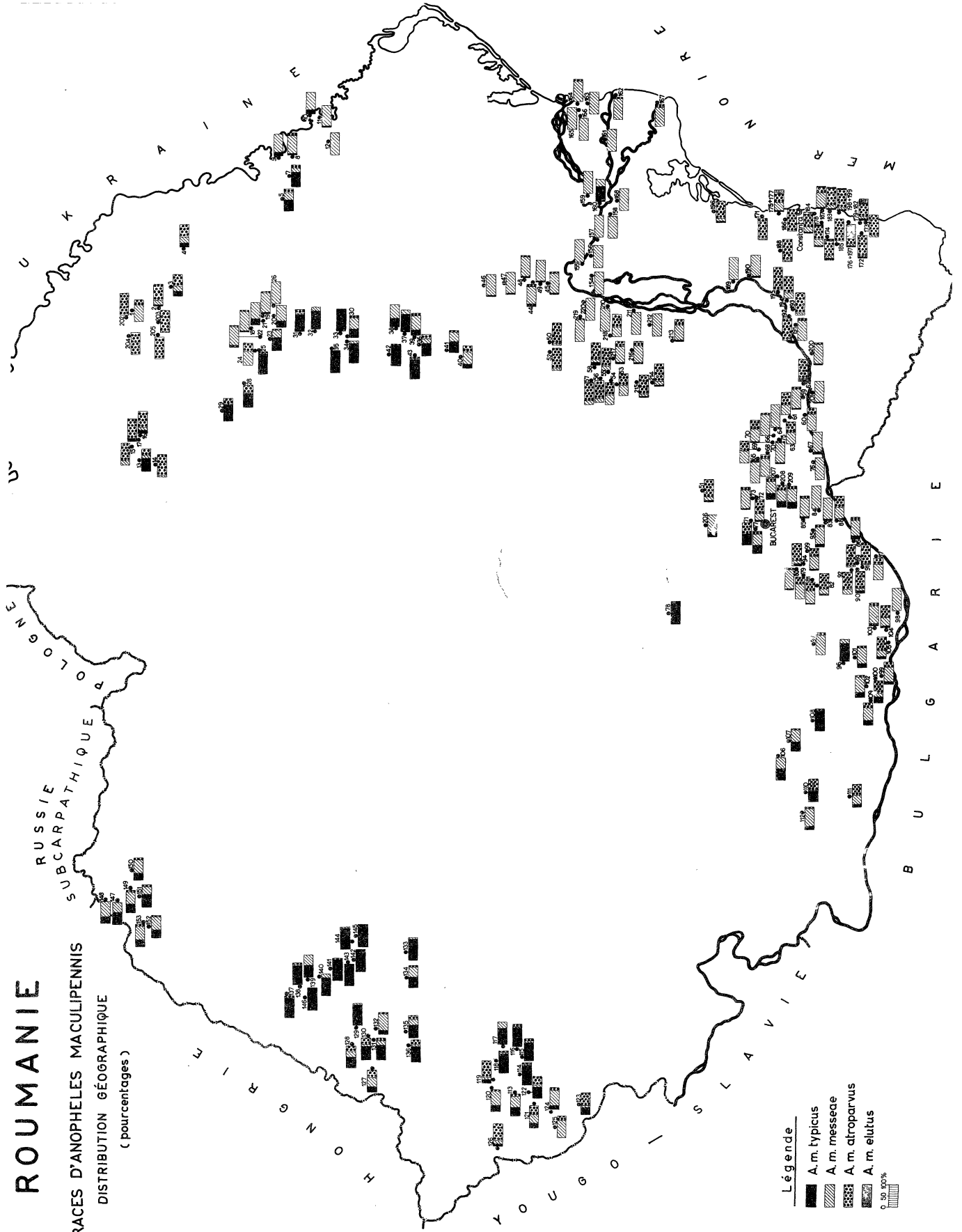
(Institut J. Cantacuzène et Laboratoire de Parasitologie de la Faculté de Médecine de Bucarest).

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Légende

- A. m. typicus
 - ▨ A. m. messeae
 - ▩ A. m. atroparvus
 - ▧ A. m. elutus
- 0, 50, 100%