the wild adults tested in Kemmendine had to be collected from many localities within that area.

In conclusion it can be said that the results of this study have indicated that no appreciable change has occurred in the larval susceptibility of *C. p. fatigans* to fenthion despite 3½ years of larval control. There has also been no evidence that adults in this area have become resistant to fenthion although a 2-fold increase in adult susceptibility values may have occurred.

REFERENCES

Rosen, P. (1967) *Bull. Wld Hlth Org.*, *37*, 301

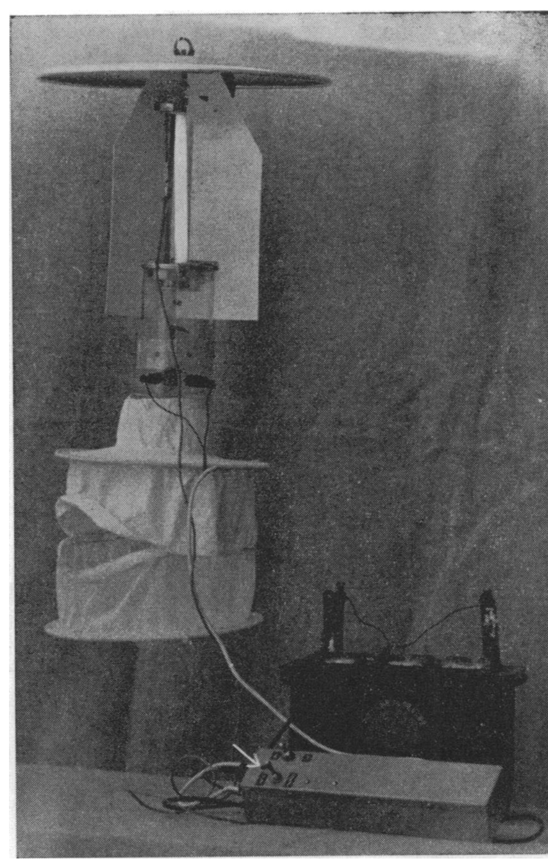
WHO Expert Committee on Insecticides (1963) *Wld Hlth Org. techn. Rep. Ser.*, No. 265, pp. 51-56

A Battery-Operated Light-Trap for Sampling Mosquito Populations*

by M. W. Service [1]

Light-traps have been extensively used in North America for sampling mosquito populations. More recently they have been used to sample *Anopheles* (Sun, 1965; Chamberlain et al., 1964), including malaria vectors (Odetoyinbo, 1969). Some groups and species of biting flies are caught mainly in traps using lights emitting large amounts of ultraviolet radiation as well as visible light (Barr et al., 1963; Breev, 1963; Davies & Williams, 1962; Williams & Davies, 1957), while others are caught in greater numbers in traps having black lights which emit only, or predominantly, ultraviolet radiation (Belton & Pucat, 1967; Breev, 1958; Rowley & Jorgensen, 1967). Incandescent lights have also proved useful (Downey, 1962; Odetoyinbo, 1969; Service, 1969a, 1969b; Sudia & Chamberlain, 1962). Recently Mangum & Callahan (1968) showed that near-infrared lamps attracted *Aedes aegypti* (L.), a species not attracted to white light. Because of the recent interest in the possibility of sampling malaria vectors with light-traps, a small, portable, battery-operated light-trap was designed that could use different light sources.

FIG. 1. A MONKS WOOD LIGHT-TRAP [a]



[a] The slit in the collecting bag is shown open. The light-sensitive photoelectric cell (arrowed) is mounted on top of the ballast box in front of the switches.

Description of trap

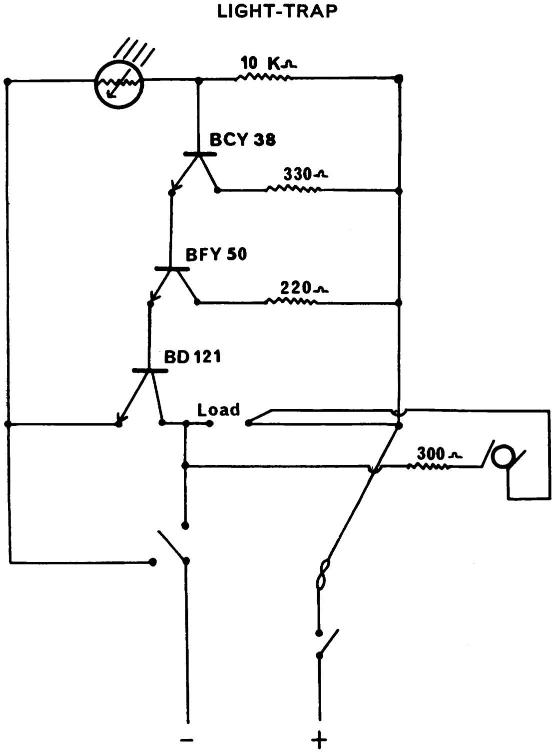
Basically the trap (Fig. 1) is similar to the Pennsylvania light-trap (Frost, 1957), except that, as in the CDC trap (Sudia & Chamberlain, 1962), a small fan is used to draw the catch down into a collecting bag.

* This work received financial support from the World Health Organization.

[1] The Nature Conservancy, Monks Wood Experimental Station, Huntingdon, England.

A description of the trap, developed at Monks Wood Experimental Station, is as follows. The light source consists of a 23-cm 6-W Actinic fluorescent tube mounted vertically between three white plastic baffles and operates through a transistor ballast from a 12-V DC power supply, normally a car battery. Light tubes giving either ultraviolet, black light or white light with emissions of different spectral power distribution can be used. These tubes have a life of some 5000 hours and consume only 0.9 A. Incorporated in the ballast box is a small transistorized photosensitized light cell, which permits the trap to be automatically switched on and off around sunset and sunrise. A switch in the box allows the solar cell circuit to be bypassed and the trap manually operated (Fig. 2). The baffles housing the light tube are slotted into a piece of clear acrylic tubing measuring 10 cm × 19 cm and having a wall thickness of 6 mm. A wire-mesh screen, which can be removed, is held in position at the entrance of the trap by a metal ring secured by three small clips screwed to the walls of the tube. A detachable metal cover to exclude rain can be fitted over the top of the trap. An aluminium 75-mm-diameter fan blade is mounted on the spindle of a small Aristo-Rev 3–4½-V DC ball-bearing motor having carbon brushes. This motor operates from a 12-V DC supply through a 3000-ohm, 0.5-W resistor connected in series. Current consumption is 0.4 A. The motor is screwed on to a metal bracket, which, with the motor, can be unscrewed from the walls of the tube and withdrawn from its bottom end for servicing or replacement. In the laboratory the motor ran satisfactorily without oiling or servicing for 800 hours before appreciably slowing down. Oiling would most probably increase its working life. The lower end of the acrylic tube is grooved on the outside so that elastic tape in the neck of the collecting bag can fit securely on to the tube. The bag is similar to that used with the CDC trap except that the top and upper part of the walls are made of cloth, not netting. The bag also has a slit-like opening along about a third of its circumference in the middle so that damp cotton-wool or plastic sponge foam covered with filter-paper can be placed over the bottom of the bag. This helps to keep the catch alive overnight. The edges of the opening are covered with Velcro (a touch-and-close fastening), allowing the opening to be easily closed. The introduction of a 11-cm-diameter smooth plastic cone at the base of the neck of the bag prevents the catch from escaping when the trap is switched off automatically by the time switch.

FIG. 2. WIRING DIAGRAM OF MONKS WOOD LIGHT-TRAP



Electrical connexions from the battery and ballast are made to the two terminals mounted at the base of the tube. The trap can run for four nights from a fully charged 12-V battery before the battery needs recharging, but in practice the battery is recharged after two or three nights.

Preliminary entomological evaluations

The light-trap with a white-light tube (Philips TL6W/29) but without a top cover was first evaluated out of doors from sunset to sunrise during August and September 1968 in southern England. For protection against rain the ballast box was placed in a plastic bag, and the battery covered with plastic sheeting. Operated for 10 nights in the Poole (Dorset) area, and subsequently for 10 nights in the Huntingdon area, the trap caught the following mosquitos:

Species	*Poole*		*Huntingdon*	
	♀	♂	♀	♂
Culiseta morsitans (Theo.)	65	22	0	0
Culiseta litorea (Shute)	3	2	0	0
Culiseta annulata (Schr.)	24	14	3	0
Culiseta subochrea (Edw.)	8	0	0	0

Species	*Poole* ♀	*Poole* ♂	*Huntingdon* ♀	*Huntingdon* ♂
Culex pipiens L.	37	52	15	11
Culex torrentium Mart.	3	12	0	0
Aedes detritus (Hal.)	16	0	0	0
Ae. cantans (Mg.)	0	0	4	4
Ae. rusticus (Rossi)	0	0	1	0
Mansonia richiardii (Fic.)	49	9	0	0

The trap also took four species of *Culicoides* at Poole and two species at Huntingdon.

Two nights of trapping in Norfolk provided 3 female *An. plumbeus* Steph. and 6 female and 30 male *An. claviger* (Mg.).

All females were unfed; some of the *Culex* species had well-developed fat reserves. In addition a wide variety of other insects was caught in the trap (Lepidoptera, Coleoptera, Hemiptera and Diptera mainly comprising Tipulidae, Chironomidae and Mycetophilidae).

Culiseta morsitans and *Culiseta litorea* were not caught in a New Jersey-type trap using a 150-W tungsten bulb operated in the same site in Dorset for two years (Service, 1969a). *Culicoides* species have previously been common at light in the Poole area (Service, 1969b). Their present low numbers are probably due to reduced populations at the time of operating the trap (Service, 1969c).

Field tests of light-traps in Nigeria

Methods. Two Monks Wood light-traps were tested inside occupied huts in several villages in the Kaduna area of northern Nigeria during the hot dry season, from 12 March to 14 May 1969, and their efficiency as a sampling tool for *An. gambiae sensu lato* and *An. funestus* Giles was compared with that of a CDC trap. Both white and ultraviolet light tubes (Philips TL6W/05) were used in the Monks Wood traps. There were no top covers to the traps.

The traps were operated in village huts on 29 nights. No catches were made on successive nights in the same huts and only on two occasions was the same village visited on successive nights. Those huts which contained one type of light-trap one night were used for a different type on the next visit. The traps were suspended from the thatched roofs so that the light tube was on a level with the eaves, a position previously found to trap the largest numbers of mosquitos by CDC traps (Odetoyinbo, 1969). The huts are built to leave only a narrow space between the walls and roof. Most huts lacked windows; all were in use by sleeping occupants, none of whom used mosquito nets. The traps were switched on at 18.45–19.00 hours and the catching bags removed at 06.30–07.00 hours the following morning.

Owing to other commitments it was not possible to make morning captures of mosquitos at rest, whether in the huts where light-traps had been operated overnight or in comparable huts. Thus it was not possible to determine what proportion of mosquitos visiting the huts entered the light-traps.

Results. Towards the end of the dry season the populations of most mosquito species were relatively small, and this was reflected in the small numbers entering village huts. Despite this, as Tables 1 and 3 show, the Monks Wood trap with either white or ultraviolet light caught more mosquitos in three series of catches than did the CDC trap ($P<0.001$). On the 9 trap-nights when the sampling efficiency of the white and the ultraviolet light tubes was compared, more *An. gambiae s.l.* and *An. funestus* were caught with the ultraviolet light tube ($P<0.05$). In all catches of *An. gambiae s.l.*, *An. funestus* and *Culex pipiens fatigans* Weid., with the exception of *An. funestus* caught by white light in the Monks Wood trap, more unfed and gravid than blood-fed individuals were taken. Males normally only formed a small percentage of the catches.

In addition to mosquitos the trap with ultraviolet light caught one female *Simulium damnosum* Theo., several *Culicoides* spp., 5 female and 7 male *Sergentomyia schwetzi* (A. T. & P.) and 1 female *Sergentomyia antennata* (Newst.).

Twenty out of 27 adults of the *An. gambiae* complex identified by the cytogenetic method (Coluzzi, 1968) represented species A, which was the predominant species in the area (Service, 1970a). The other 7 were species B.

A Monks Wood trap with a white-light tube operated on 4 nights between 20 March and 4 April in uninhabited bush about 24 km north-north-east of Kaduna, collected the following numbers, classed by sex and condition:

Species	*Males*	*Unfed females*	*Gravid females*
Anopheles gambiae s.l.	1	0	6
An. funestus	1	4	0
An. rufipes rufipes (Gough)	2	4	0
An. pretoriensis (Theo.)	0	2	0
Culex pipiens fatigans	0	8	0
Culex decens Theo.	1	0	0
Uranotaenia balfouri Theo.	1	0	0

The presence of *An. gambiae s.l.* and *An. funestus* is of interest as the nearest village was about 3 km from the sites.

TABLE 1

SUMMARY OF LIGHT-TRAP CATCHES OF THREE COMMON MOSQUITOS INSIDE OCCUPIED NIGERIAN HUTS, FEBRUARY TO MAY 1969[a]

CDC trap													Monks Wood trap																									
													White light													Ultraviolet light												
	An. gambiae				*An. funestus*				*C. p. fatigans*					*An. gambiae*				*An. funestus*				*C. p. fatigans*					*An. gambiae*				*An. funestus*				*C. p. fatigans*			
	Females				Females				Females					Females				Females				Females					Females				Females				Females			
No. of trap-nights	Unfed	Blood-fed	Gravid	Males	Unfed	Blood-fed	Gravid	Males	Unfed	Blood-fed	Gravid	Males	No. of trap-nights	Unfed	Blood-fed	Gravid	Males	Unfed	Blood-fed	Gravid	Males	Unfed	Blood-fed	Gravid	Males	No. of trap-nights	Unfed	Blood-fed	Gravid	Males	Unfed	Blood-fed	Gravid	Males	Unfed	Blood-fed	Gravid	Males
24	24	4	118	5	14	3	26	0	4	0	2	1	24	184	22	393	119	80	54	9	4	14	3	6	5	0	—	—	—	—	—	—	—	—	—	—	—	—
	Mean catch 6.1				Mean catch 1.8				Mean catch 0.3					Mean catch 25.0				Mean catch 5.9				Mean catch 1.0																
19	36	10	16	12	22	2	15	4	6	2	1	2	10	35	2	32	12	10	3	21	0	33	2	9	3	9	62	3	60	104	43	2	43	27	15	1	3	2
	Mean catch 3.3				Mean catch 2.1				Mean catch 0.5					Mean catch 6.9				Mean catch 3.4				Mean catch 2.3					Mean catch 13.9				Mean catch 9.8				Mean catch 2.1			
10	22	12	28	1	12	5	8	6	3	1	2	0	5	36	7	44	6	15	3	19	1	12	4	7	3	0	—	—	—	—	—	—	—	—	—	—	—	—
	Mean catch 6.2				Mean catch 2.5				Mean catch 0.6					Mean catch 15.4				Mean catch 7.4				Mean catch 2.3																
%	30.4	9.6	60.0	6.3	44.9	9.3	45.8	8.5	61.9	14.3	23.8	12.5		33.8	4.1	62.1	15.4	49.1	28.0	22.9	2.3	65.6	10.0	24.4	10.9		49.6	2.4	48.0	45.4	48.9	2.3	48.9	27.5	78.9	5.3	15.8	9.5

[a] Numbers and mean catches are given for 3 series of observations, in which traps were operated on 12, 10 and 5 nights respectively. In the last series a black-light tube was also operated in a Monks Wood trap, but caught no mosquitos.

TABLE 2

CATCHES BY MONKS WOOD LIGHT-TRAP OF THREE COMMON MOSQUITOS IN HUTS, KENYA, OPERATED FOR 7 NIGHTS IN NOVEMBER 1969

White light

	An. gambiae				*An. funestus*				*C. p. fatigans*			
	Females			Males	Females			Males	Females			Males
	Unfed	Blood-fed	Gravid		Unfed	Blood-fed	Gravid		Unfed	Blood-fed	Gravid	
Number	423	67	41	165	56	4	17	43	74	12	10	5
%	79.7	12.6	7.7	23.7	72.7	5.2	22.1	35.8	77.1	12.5	10.4	5.0
Mean catch	75.9			23.6	11.0			6.1	13.7			0.7

Ultraviolet light

	An. gambiae				*An. funestus*				*C. p. fatigans*			
	Females			Males	Females			Males	Females			Males
	Unfed	Blood-fed	Gravid		Unfed	Blood-fed	Gravid		Unfed	Blood-fed	Gravid	
Number	334	61	49	134	70	1	53	24	92	17	23	5
%	75.2	13.7	11.0	23.2	56.5	0.8	42.7	16.2	69.7	12.9	17.4	3.6
Mean catch	63.4			19.7	17.7			3.4	18.9			0.7

Field tests of the Monks Wood trap in Kenya

Methods. During November 1969 a Monks Wood trap with a white-light tube and another with an ultraviolet tube were operated on 7 nights in two small villages in the Kisumu area of Kenya. The method of operating the traps was similar to that used in Nigeria. The huts, however, differed from the Nigerian ones in having a gap of about 12 cm between the top of the walls and the roof.

Results. The mosquito populations were considerably larger during these trials than those encountered in Nigeria. The mean catch per night of each of the three commonest species (Table 2) was thus much larger than in Nigeria. Nevertheless there is no significant difference between the total numbers of mosquitos caught by the two different light tubes ($P>0.5$). Relatively few males were caught, and unfed females again predominated. Of 53 adults of the *An. gambiae* complex caught at night and identified, 72% were species A. This is the same as the percentage of this species found in samples caught while resting in huts in the area (Service, 1970b).

Considerable numbers of *Mansonia uniformis* (Theo.), *M. africana* (Theo.), *M. fuscopennata* (Theo.), *An. pharoensis* Theo. and *An. ziemanni* Grün. were caught in the traps, as shown in Table 3. These three *Mansonia* species do not occur very commonly in pyrethrum spray catches performed in the huts, while the two *Anopheles* species are rarely taken in such catches. No males of these five species were caught, and the only gravid females were 8 *M. uniformis*. Blood-fed individuals formed 42% of the catch of *M. uniformis*, 38% of that of *M. africana* and 50% of that of *M. fuscopennata*. All the *An. pharoensis* and *An. ziemanni* were unfed.

Discussion

Verheijen (1960) has shown that light-traps catch insects because the high intensity of illumination of the traps relative to the surroundings interferes with the flight orientation of the insects. This results in their moving towards the trap. Any phenomenon that reduces this contrast in illumination, such as moonlight, will reduce the size of the catch. An increase in the light intensity in the trap usually results in an increased catch. However, high-intensity lights may repel some insects, especially small, weakly flying ones, when they are immediately near the light source. The introduction of a fan and the addition of baffles around the light source serve to catch those insects which would otherwise be

TABLE 3

TOTAL CATCHES OF OTHER MOSQUITOS CAUGHT IN LIGHT-TRAPS IN HUTS IN NIGERIA AND KENYA

CDC trap	
Species	Nigeria (53 trap-nights)
Anopheles rufipes s.l.	12
An. pretoriensis	1
Culex, sp. indet.	3
Aedes aegypti s.l.	2
Ae. vittatus (Bigot)	2
Mansonia uniformis	2
M. metallica (Theo.)	1

Monks Wood trap, white light		
Species	Nigeria (39 trap-nights)	Kenya (7 trap-nights
An. rufipes s.l.	39	0
An. pharoensis	0	39
An. ziemanni	0	32
Culex tigripes Grand. et Char.	1	0
C. nebulosus Theo.	4	2
C. duttoni Theo.	2	0
C. annulioris Theo.	0	3
C. insignis (Cart.)	0	3
Culex sp. indet.	1	0
Ae. aegypti	10	1
Ae. vittatus	5	0
Ae. luteocephalus (Newst.)	7	0
Ae. lineatopennis (Ludl.)	1	0
M. uniformis	4	56
M. africana	0	27
M. fuscopennata	0	12
M. aurites (Theo.)	0	1
Uranotaenia mashonaensis (Theo.)	1	0

Monks Wood trap, ultraviolet light		
Species	Nigeria (9 trap-nights)	Kenya (7 trap-nights)
An. rufipes s.l.	12	0
An. pharoensis	0	47
An. ziemanni	0	38
C. nebulosus	6	0
C. annulioris	0	11
C. insignis	0	5
Culex sp. indet.	3	0
Ae. aegypti	15	0
Ae. vittatus	18	0
M. uniformis	0	78
M. africana	0	42
M. fuscopennata	0	38

repelled " at the last moment ". Frost (1958) almost doubled his catch of insects by the addition of baffles to his traps.

Until recently light-traps were not regarded as efficient sampling tools for studying African malaria vectors, but Odetoyinbo (1969) has shown that under certain conditions they can catch large numbers of *An. gambiae s.l.* and *An. funestus*. He also found that the effective range of the CDC traps he used was less than 5 m. The biggest catches were obtained when the traps were placed near the hosts, i.e., inside huts and close to the mosquitos' flight path.

The present trials confirm that light-traps placed in huts will catch *An. gambiae s.l.* and *An. funestus*. Furthermore, they show that both species A and B of the *An. gambiae* complex are caught in the traps in addition to other medically important mosquitos such as *Culex pipiens fatigans*, *M. uniformis*, *M. africana* and *Ae. aegypti*. The Monks Wood trap with its much higher-intensity light source catches more specimens and more species than the CDC trap.

Unfed mosquitos predominate in light-trap catches in huts but this does not necessarily imply that there is a specific selection for mosquitos in this physiological state. A light-trap in a hut will catch unfed mosquitos comprising (1) those that remained in the hut during the previous day, after failing to obtain a blood-meal, and (2) those entering the huts to feed. The removal of these by the light-trap will obviously reduce the numbers feeding, and hence the incidence of blood-fed specimens in the trap. On the other hand, the catch of gravid females would not be affected by the removal of unfed individuals. At present we have no information on the numbers of mosquitos (unfed, blood-fed or gravid) remaining in the hut when the trap is switched off, nor of those leaving the hut while it is in operation. The presence of *An. pharoensis* and *An. ziemanni* in the traps and their almost complete absence during the day in huts indicates that they enter at night to feed but leave again before daybreak. All those caught in the light-traps were unfed, suggesting that the presence of the trap in the huts prevented them from locating their hosts.

Apart from sampling mosquito populations in huts, light-traps would probably catch large numbers of malaria vectors if they were placed in the relatively narrow flight paths that Giglioli (1965a, 1965b) considered were formed by *An. melas* Theo. flying from its breeding place to villages. Furthermore, they might be useful in catching mosquitos from relatively inaccessible places, such as down wells.

In recent trials in Ghana the Monks Wood trap, fitted with a white-light tube, caught large numbers of *Simulium* (including *S. damnosum*), thousands of *Culicoides* and also some Tabanidae (Odetoyinbo, personal communication). Thus it appears that this light-trap can be useful in sampling a broad spectrum of medically important Diptera.

ACKNOWLEDGEMENTS

The light-traps were evaluated in Africa during two short-term consultantships with the *Anopheles* Control Research Units of WHO; I thank the staff of those units and the World Health Organization, Geneva, for providing facilities for this work. Thanks are due also to Mr V. Snapes for his technical advice and for making the traps, and to Mr M. Yates for assisting in their construction. I am indebted to Mr H. S. King for technical information on small DC motors and for testing the working life of different types. It is a pleasure to thank Mr C. Garrett-Jones for his keen interest in the work. Dr D. J. Lewis kindly indentified the two species of *Sergentomyia*.

REFERENCES

Barr, A. R. et al. (1963) *J. econ. Ent.*, **56**, 123–127
Belton, P. & Pucat, A. (1967) *Canad. Ent.*, **99**, 267–272
Breev, K. A. (1958) *Parazit. Sb.*, **18**, 219–238
Breev, K. A. (1963) *Ént. Obozr.*, **42**, 280–303 (transl. in *Ent. Rev. (Wash.)*, **42**, 155–168)
Chamberlain, R. W. et al. (1964) *Amer. J. trop. Med. Hyg.*, **13**, 456–461
Coluzzi, M. (1968) *Parassitologia*, **10**, 179–183
Davies, L. & Williams, C. B. (1962) *Trans. roy. ent. Soc. Lond.*, **114**, 1–20
Downey, J. E. (1962) *Bull. Brooklyn ent. Soc.*, **57**, 61–63
Frost, S. W. (1957) *J. econ. Ent.*, **50**, 287–292
Frost, S. W. (1958) *Canad. Ent.*, **90**, 566–567
Giglioli, M. E. C. (1965a). In: *Proceedings of the Twelfth International Congress of Entomology... 1964*, London, pp. 757–758
Giglioli, M. E. C. (1965b) *Cahiers O.R.S.T.O.M. Ent. méd.*, **3** & **4**, 11–26
Mangum, C. L. & Callahan, P. S. (1968) *J. econ. Ent.*, **61**, 36–37
Odetoyinbo, J. A. (1969) *Bull. Wld Hlth Org.*, **40**, 547–560
Rowley, W. A. & Jorgensen, N. M. (1967) *J. econ. Ent.*, **60**, 1478–1479
Service, M. W. (1969a) *Ent. exp. appl.*, **12**, 403-412
Service, M. W. (1969b) *Bull. ent. Res.*, **59**, 317–322
Service, M. W. (1969c) *Proc. roy. ent. Soc. Lond.*, (A), **44**, 1–10
Service, M. W. (1970a) *Ann. trop. Med. Parasit.* **64**, 131-136
Service, M. W. (1970b) *Bull. ent. Res.*, **60**, 105-108
Sudia, W. D. & Chamberlain, R. W. (1962) *Mosquito News*, **22**, 126–129
Sun, W. K. C. (1965) *J. med. Ent.*, **1**, 227–284
Verheijen, F. J. (1960) *Archs néerl. Zool.*, **13**, 1–107
Williams, C. B. & Davies, L. (1957) *Nature (Lond.)*, **179**, 924

Transliteration from Cyrillic characters

The " International System for the Transliteration of Cyrillic Characters ", set out in Recommendation ISO/R9-1954 (E) of the International Organization for Standardization, is normally used in the *Bulletin of the World Health Organization* for personal names, titles of publications, etc. However, papers accepted for publication may contain names transliterated differently, and if the original Cyrillic spelling is not recognizable inconsistencies may occur.

For convenience the transliteration from Russian according to ISO/R9 is given below:

Translittération des Caractères cyrilliques

Le « Système international pour la translittération des caractères cyrilliques » présenté dans la Recommandation ISO/R9-1954 (F) de l'Organisation internationale de Normalisation est généralement utilisé dans le *Bulletin de l'Organisation mondiale de la Santé* pour les noms de personnes, les titres de publications, etc. Cependant des articles acceptés pour publication peuvent contenir des noms translittérés différemment et si l'orthographe cyrillique originale n'est pas reconnaissable un manque d'uniformité peut s'ensuivre.

A toutes fins utiles, la translittération du russe selon la recommandation ISO/R9 est indiquée ci-après:

Cyrillic character / Caractère cyrillique	Transliteration from Russian / Translittération du russe	Examples and remarks / Exemples et observations
А, а	a	Адрес = Adres
Б, б	b	Баба = Baba
В, в	v	Вы = Vy
Г, г	g	Глава = Glava Голова = Golova
Д, д	d	Да = Da
Е, е (ё) [1]	e (ë)	Ещё = Eščë
Ж, ж	ž	Журнал = Žurnal
З, з	z	Звезда = Zvezda
И, и	i	Или = Ili
Й, й	j	-ый, -ий, -ой = -yj, -ij, -oj
К, к	k	Как = Kak
Л, л	l	Любить = Ljubit'
М, м	m	Муж = Muž
Н, н	n	Нижний = Nižnij
О, о	o	Общество = Obščestvo
П, п	p	Первый = Pervyj
Р, р	r	Рыба = Ryba
С, с	s	Сестра = Sestra
Т, т	t	Товарищ = Tovarišč

Cyrillic character / Caractère cyrillique	Transliteration from Russian / Translittération du russe	Examples and remarks / Exemples et observations
У, у	u	Утро = Utro
Ф, ф	f	Физика = Fizika
Х, х	h	Химический = Himičeskij
Ц, ц	c	Центральный = Central'nyj
Ч, ч	č	Часы = Časy
Ш, ш	š	Школа = Škola
Щ, щ	šč	Щека = Ščeka
Ъ, ъ (medial, médial)	″ or ″ ou ″	In modern Russian, where ′ sometimes replaces medial ъ, transliteration is still ″. En russe moderne, où le ′ remplace quelquefois le ъ médial, la translittération reste ″.
Ъ, ъ (final)	(Not transliterated. Non translittéré.)	
Ы, ы	y	Был = Byl
Ь, ь	′ or ′ ou ′	Маленький = Malen'kij
Э, э	e̊	Это = E̊to
Ю, ю	ju	Южный = Južnyj
Я, я	ja	Яйцо = Jajco

[1] Cyrillic ë to be transliterated by ë only when the diacritical appears in the original. Le ë cyrillique ne doit être translittéré par ë que lorsque la diacritique apparaît dans l'original.