

## DISTRIBUTIONAL RECORDS FROM THE U.S. AIR FORCE OVITRAPPING PROGRAM—1991

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**ABSTRACT.** During 1991, ovitrapping was conducted by 37 U.S. Air Force installations. Sixteen installations were positive for *Aedes albopictus*. The number (449) and percent (21.5%) of *Ae. albopictus*-positive ovipaddles was almost 4 times that of the previous year. The collections of *Ae. albopictus* at Columbus Air Force Base (AFB), MS, and Shaw AFB, SC, are new records for Lowndes and Sumter counties, respectively. Nine installations were positive for *Ae. aegypti*; 21 were positive for *Ae. triseriatus*.

Over the past several years, ovitrapping programs at U.S. Air Force (USAF) installations in the southern, midwestern and eastern United States have documented the spread of *Aedes albopictus* (Skuse) and the decline of *Ae. aegypti* (Linn.) (McHugh and Vande Berg 1989, McHugh and Hanny 1990, McHugh 1991). The following note summarizes the distribution and abundance of *Aedes* mosquitoes collected in ovitraps at USAF installations during 1991.

A total of 2,088 ovipaddles from 37 USAF installations were received at the Occupational and Environmental Directorate, Armstrong Laboratory, Brooks AFB, TX, during 1991. Eggs on ovipaddles were tentatively identified as *Aedes triseriatus* (Say) or *Aedes (Stegomyia)* sp., hatched in a 1:1 mixture of tap:distilled water, and reared on liver powder to fourth instar larvae or adults for specific identification.

A total of 449 *Ae. albopictus*-positive ovipaddles were submitted by 16 installations (Table 1). This is an almost four-fold increase over the 1990 total (118), a year when the total number of ovipaddles submitted (1,973) was comparable. Compared with the previous 3 years, 1991 also had the highest percentage (21.5%) of *Ae. albopictus*-positive ovipaddles, with 2.7, 8.3 and 6.0% reported in 1988, 1989 and 1990, respectively. Infestations at installations in and around San Antonio, TX, were particularly heavy; 50% or more of the ovipaddles collected at each of the 4 bases in the San Antonio area (Bexar County, TX) were positive for *Ae. albopictus*. At Tinker AFB, OK, which first recorded *Ae. albopictus* in 1990 with 4.4% positive ovipaddles, the total increased to 25.6%. The finding of *Ae. albopictus* on an ovipaddle collected at Columbus AFB, MS, on April 24 was a first record for Lowndes County. Two *Ae. albopictus*-positive ovipaddles

collected on August 15 at Shaw AFB, SC, are a first record for Sumter County.

Nine installations submitted a total of 24 ovipaddles positive for *Ae. aegypti*. While this is over twice the 1990 total of 11 *Ae. aegypti*-positive ovipaddles, it is well below the 1988 and 1989 totals of 91 and 149, respectively. Infestations of *Ae. aegypti* were relatively low compared with previous years; no installation exceeded 8% of ovipaddles positive for that species.

One hundred thirty-one ovipaddles contained eggs which were tentatively identified as *Aedes (Stegomyia)* spp., but from which specimens could not be reared for specific identification. With the exception of England AFB, all the submitting installations also were positive for *Ae. albopictus* and/or *Ae. aegypti*. *Aedes triseriatus* was the most widely distributed species, with 21 installations submitting 184 *Ae. triseriatus*-positive ovipaddles.

Sixty ovipaddles held eggs of more than one species; 12 held *Ae. albopictus* and *Ae. aegypti*, 48 held *Ae. albopictus* and *Ae. triseriatus*. No ovipaddles positive for both *Ae. triseriatus* and *Ae. aegypti* were collected.

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### REFERENCES CITED

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Table 1. Summary of ovipaddles processed at the Occupational and Environmental Health Directorate, Armstrong Laboratory, Brooks Air Force Base, TX, during 1991.

Installation <sup>1</sup> and state	County (Parish in LA)	Total ovipaddles	Positive ovitraps							
			<i>Aedes albopictus</i>		<i>Aedes aegypti</i>		<i>Aedes (Stegomyia)</i>		<i>Aedes triseriatus</i>	
			<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gunter AFB, AL	Montgomery	60	25	41.7	0	0.0	11	18.3	2	3.3
Maxwell AFB, AL	Montgomery	110	48	43.6	1	0.9	14	12.7	23	20.9
Eaker AFB, AR	Mississippi	151	19	12.6	0	0.0	5	3.3	1	0.7
Little Rock, AFB, AR	Pulaski	72	32	44.4	0	0.0	7	9.7	9	12.5
Bolling AFB, DC	—	136	0	0.0	0	0.0	0	0.0	3	2.2
Dover AFB, DE	Kent	27	0	0.0	0	0.0	0	0.0	6	22.2
Eglin AFB, FL	Okaloosa	11	4	36.4	0	0.0	1	9.1	2	19.2
Kennedy SC, FL	Brevard	46	0	0.0	2	4.3	1	2.2	0	0.0
MacDill AFB, FL	Hillsborough	31	8	25.8	1	3.2	1	3.2	0	0.0
Tyndall AFB, FL	Bay	107	20	18.7	6	5.6	9	8.4	5	4.7
Robins AFB, GA	Houston	15	0	0.0	0	0.0	0	0.0	2	13.3
Barksdale AFB, LA	Bossier	47	3	6.4	0	0.0	7	14.9	1	2.1
England AFB, LA	Rapides	17	0	0.0	0	0.0	1	5.9	0	0.0
Andrews AFB, MD	Prince Georges	59	0	0.0	0	0.0	0	0.0	22	37.3
Wurtsmith AFB, MI	Iosco	91	0	0.0	0	0.0	0	0.0	32	35.2
Whiteman AFB, MO	Johnson	8	0	0.0	0	0.0	0	0.0	2	25.0
Columbus AFB, MS	Lowndes	98	32	32.7	0	0.0	7	7.1	28	28.6
Pope AFB, NC	Cumberland	11	0	0.0	0	0.0	2	18.2	2	18.2
Seymour Johnson AFB, NC	Wayne	160	0	0.0	2	1.3	4	2.5	1	0.6
Tinker AFB, OK	Oklahoma	57	14	25.6	0	0.0	4	7.0	5	8.8
Charleston AFB, SC	Berkeley	82	0	0.0	2	2.4	5	6.1	3	3.7
Shaw AFB, SC	Sumter	66	3	4.5	5	7.6	2	3.0	0	0.0
Arnold AFS, TN	Coffee	48	15	31.2	0	0.0	2	4.2	33	68.8
Brooks AFB, TX	Bexar	107	77	72.0	3	2.8	16	9.3	0	0.0
Kelly AFB, TX	Bexar	2	1	50.0	0	0.0	0	0.0	1	50.0
Lackland AFB, TX	Bexar	132	73	55.3	0	0.0	19	14.4	1	0.8
Randolph AFB, TX	Bexar	133	77	57.9	2	1.5	17	12.8	0	0.0
Total		2,088 <sup>2</sup>	449	21.5	24	1.1	131	6.3	184	8.8

<sup>1</sup> Installation abbreviations: Air Force Base, AFB; Air Force Station, AFS; Space Center, SC.

<sup>2</sup> Includes ovipaddles submitted by the following organizations, all of which were negative: Beale AFB, CA-5; Homestead AFB, FL-17; Patrick AFB, FL-110; Moody AFB, GA-17; Scott AFB, IL-7; Hanscom AFB, MA-1; Keesler AFB, MS-2; Offutt AFB, NE-2; McGuire AFB, NJ-16; Holloman AFB, NM-27.