Virus Name: Matariya	Abbreviation: MTYV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

SALS Basis
Results of SALS surveys and information from the Catalogue.

Other Information

Antigenic Group
Matariya

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
An 1477-61

Accession Number

Original Date Submitted
11/7/1984

Family
Bunyaviridae

Genus
Bunyavirus-like

Information From
J.R. Schmidt

Address
Department of the Navy, BUMED, Washington, D.C. 20372 USA

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
J.R. Schmidt

Isolated at Institute
Cairo, Egypt

Host Genus
Sylvia curraca (Lesser whitethroat), southward migrant

Species

Host Age/Stage
Adult

Sex
Not Answered

Isolated From	Isolation Details
Whole Blood	**(heparin)**

Signs and Symptoms of Illness
None

Arthropod

Time Held Alive before Inoculation

Collection Method
Netted

Collection Date
10/8/1961

Place Collected (Minimum of City, State, Country)
West of Port Said, Port Said Gov., Egypt

Latitude
31° N

Longitude
32° E

Macrohabitat
Littoral of Egyptian delta

Microhabitat

Method of Storage until Inoculated
Not stored

Footnotes

Section III - Method of Isolation

Inoculation Date
10/10/1961

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Yes

Other Reasons

Homologous Antibody Formation by Source Animal
Not tested

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical

Pieces (number of genome segments)	Infectivity	Sedimentation Coefficients(s) (S)
Percentage wt, of Virion Protein	Lipid	Carbohydrate
Virion Polypeptides: Number	Details	
Non-virion Polypeptides: Number	Details	
Virion Density	Sedimentation Coefficients(s) (S)	
Nucleocapsid Density	Sedimentation Coefficients(s) (S)	

Stability of Infectivity (effects)

pH (infective range)

Lipid Solvent (ether - % used to test) **1:10**	After Treatment Titer **<2.5 dex**	Control Titer **5.5 dex**
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer **1.5 dex**	Control Titer **4.5 dex**

Other (formalin, radiation)

Virion Morphology

Shape **Bunyavirus-like particles (2)**	Dimensions	
Mean nm	Range nm	
Measurement Method **Electron microscopy (2)**	Surface Projections/Envelope	Nucleocapsid Dimensions, Symmetry

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
Inclusion Bodies	Other	

Hemagglutination

Hemaggiutination	Antigen Source	Erythrocytes (species used)
No	**SMB ext. by sucrose-acetone**	**Goose**
pH Range **5.9-7.3**	pH Optimum	
Temperature Range **4dC - 37dC**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

Section V - Antigenic Relationship and Lack of Relationship to Other Viruses

Related to Burg el Arab virus by CF as follows [1] :

Antigen	Antibody	
	Burg el Arab	Matariya
Burg el Arab	512	4
Matariya	128	128

Antigen did not react by CF with grouping ascitic fluids of groups A, B, C, Guama, Capim, Simbu, Bunyamwera, California, Anopheles A, Anopheles B, Turlock Tacaribe, vesicular stomatitis, Quaranfil, Kaisodi, Qalyub, and Phlebotomus fever. Matariya ascitic fluid did not react by CF with antigens of 117 presumed arboviruses and herpes simplex, LCM, NDV, rabies, ectromelia, reovirus 3 and psittacosis. Matariya serum did not inhibit hemagglutination by fowl plague virus.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice, primary hamster kidney and Vero cell cultures

Cell system (a)	Virus passage history (b)	Evidence of Infection							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	

Section VII - Natural Host Range (Additional text can be added below table)

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Sylvia curruca	1/323		Egypt
Sylvia borin	1/35		

Section VIII - Susceptibility to Experimental Infection (include viremia)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log10/ml
Mice (nb)	SMB 5	ic 0.01	Death	4*	7.5
Mice (nb)		ip 0.05	None		<1.5
Mice (nb)		sc			
Mice (wn)		ic 0.03	None		<1.5
Mice (wn)		ip 0.2	None		<1.5

*AST for mice inoculated with a 10-3 dilution.

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmision by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System

Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies — Intranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human Disease

In Nature	Residual	Death
Subclinical	Overt Disease	
Reported		
Clinical Manifestations		
Number of Cases	Category (i.e. febrile illness, etc.)	

Section XII - Geographic Distribution

Known (Virus detected)
Egypt: also probably Europe since birds arrived viremic in Egypt from Europe.

Suspected (Antibody only detected)
Europe

Section XIII - References

1. Shope, R.E. Personal communication.
2. Harrison, A., et al. Personal communication. 1981.
3. The Subcommittee on Arbovirus Laboratory Safety of the Americain Committee on Arthropod-Borne viruses. 1980. Am. J. Trop. Med. Hyg. 29: 1359-1361.

Remarks