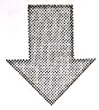
WING VENATION

Wing venation is considered a stable and one of the diagnostic character for identification of moths and butterflies for the last 210 years.

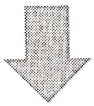
PROCEDURE FOR MOTHS WING VENATIONS

Zimmerman (1978)

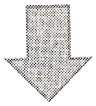
Separation of right wing by giving an upward jerk with the help of a fine forceps



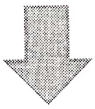
Dipped in 30% alcohol followed by 50% alcohol to make them soft



Descaling will be done with the help of Sodium hypochlorite



Washed in distilled water and dipped in upgrading alcohol up to 100% (i.e., 50%; 70%; 100%)



Stained in Alcoholic Eosin for 12-14 hours

Cleared in xylene before mounting in DPX

Forewing=12 veins

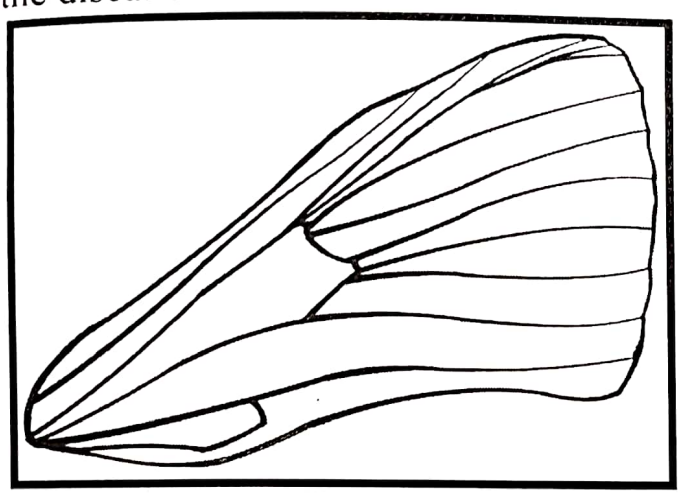
3A	:	3rd Anal Vein
1A	:	First anal vein
2A	:	Second anal vein
M_1	:	First median vein
M_2	:	Second median vein
M_3	:	Third median vein
R_1	:	First radial vein
R_2	:	Second radial vein
R_3	:	Third radial vein
R_4	:	Fourth radial vein
R_5	:	Fifth radial vein
Sc	:	Subcosta
~~$Sc+R_1$~~	:	~~Stalk of Sc + R_1~~

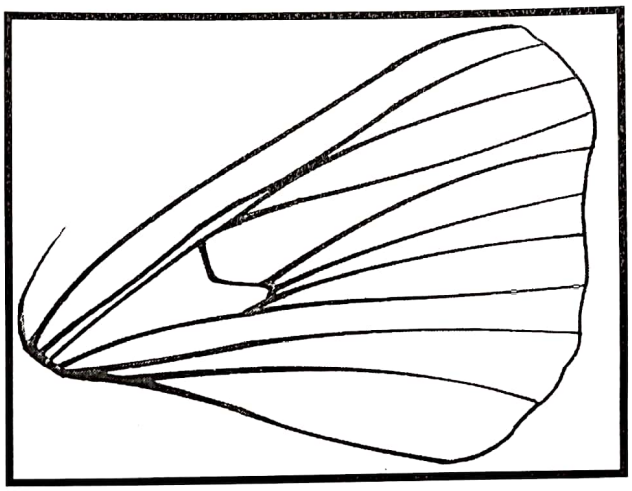
Hindwing=8 Veins

3A	:	3rd Anal Vein
1A	:	First anal vein
2A	:	Second anal vein
M_1	:	First median vein
M_2	:	Second median vein
M_3	:	Third median vein
Rs	:	Radial Sector
~~Sc~~	:	~~Subcosta~~
$Sc+R_1$	:	Stalk of Sc + R_1

➢ FAMILY CRAMBIDAE

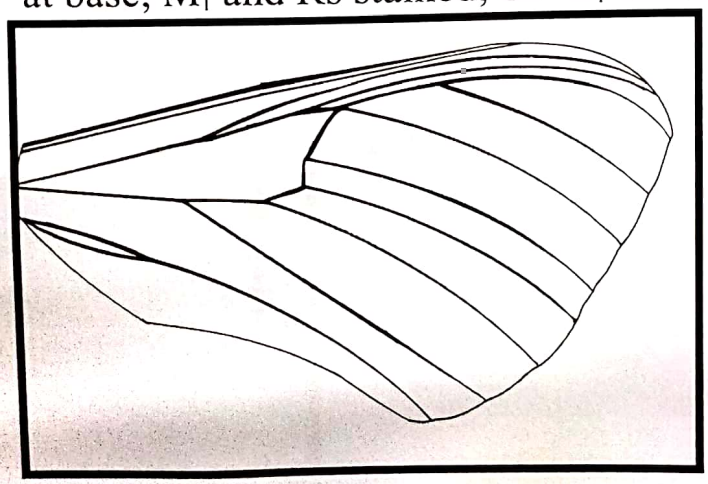
Diagnostic features: Forewing with discal cell closed; 3A forming a balloon-like shape with 2A; CU_1, M_3 and M_2 arising from nearly same point. Hindwing with discal cell closed, CU_1, M_3 and M_2 arising from nearly same point and $Sc+R_1$ stalked from beyond the discal cell.

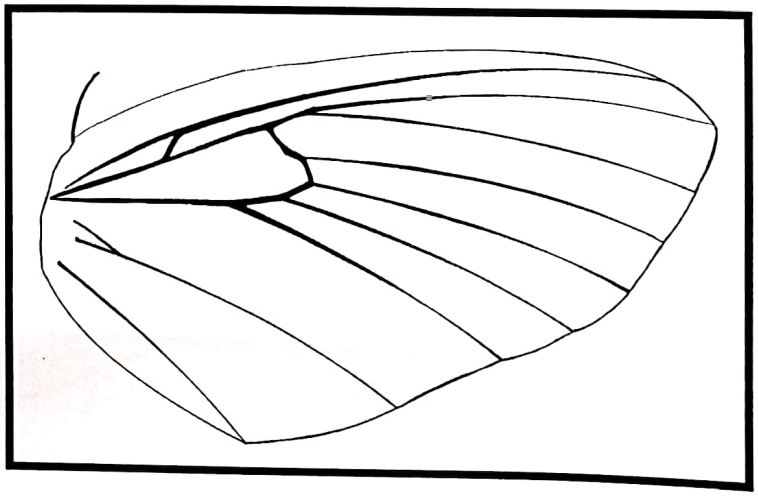




➢ FAMILY SPHINGIDAE

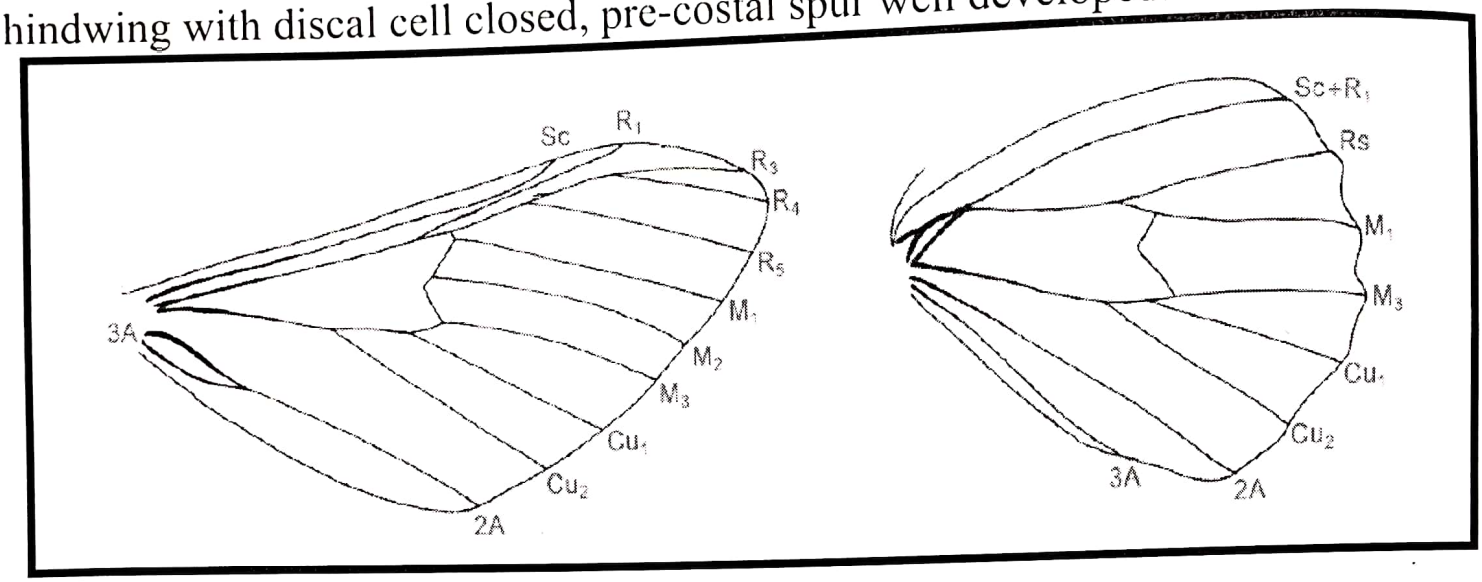
Diagnostic features: Forewing with discal cell closed; CU_2 arising from well above lower angle of cell; vein $R_{(3+2)}$ fused; Hindwing with discal cell closed, vein 2A forked at base; M_1 and Rs stalked; $Sc+R_1$ forming a bar with discal cell.





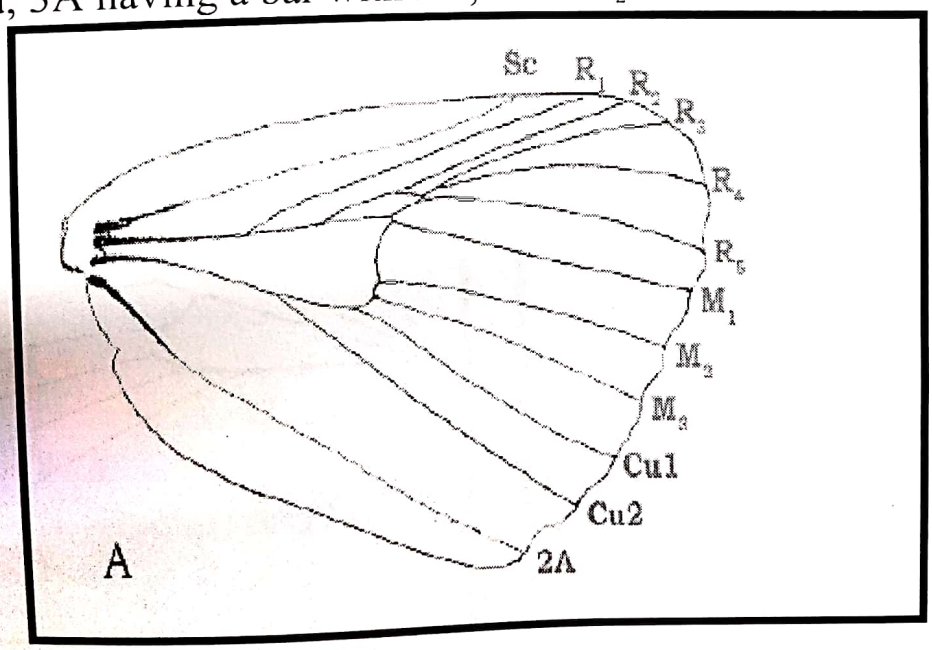
➢ FAMILY GEOMETRIDAE

Diagnostic features: Forewing with discal cell closed; R_5 arising from R_4; R_2 absent; hindwing with discal cell closed, pre-costal spur well developed.



➢ FAMILY NOCTUIDAE

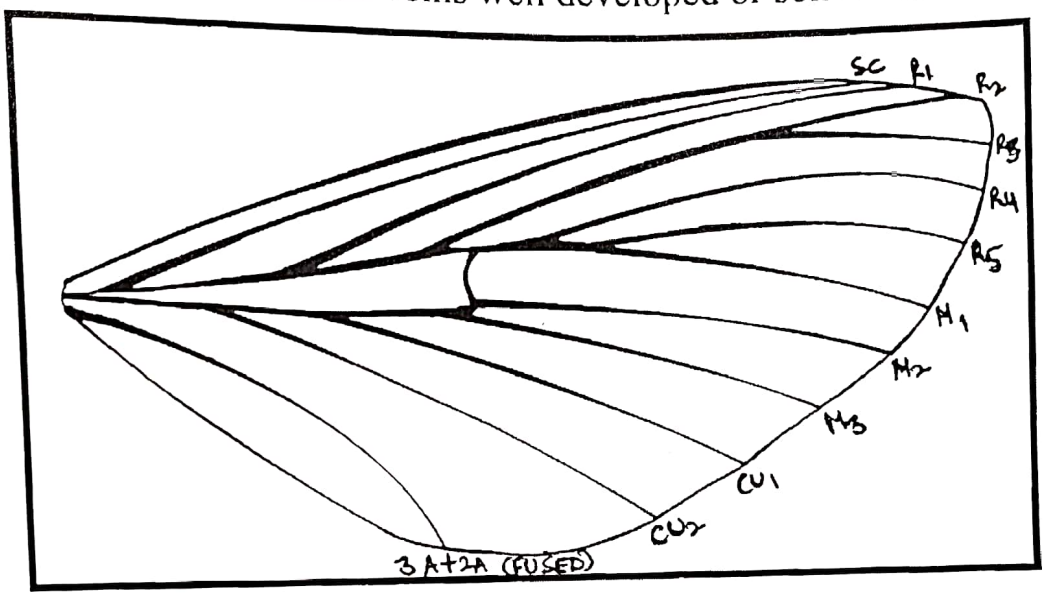
Diagnostic features: Forewing with discal cell closed; R_4 given off from R_5 and anastomosing with R_3 which is given off from R_2 to form an areole. Hindwing with discal cell closed, 3A having a bar with 2A; vein M_2 indistinct/thin/not developed.

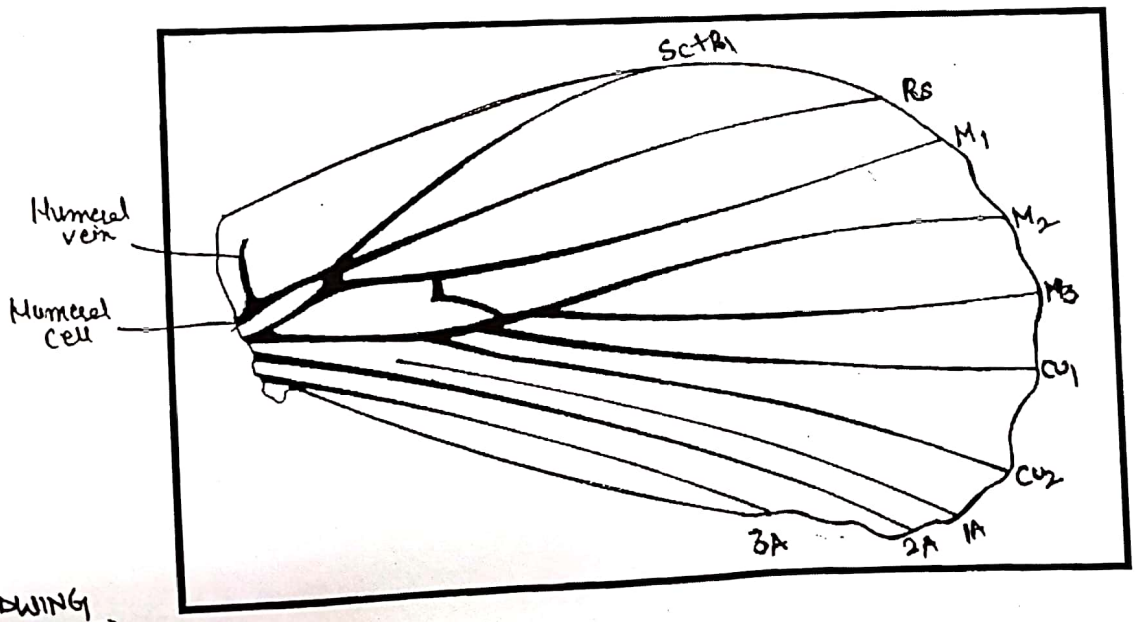


FAMILY LASIOCAMPIDAE

Forewing with discal cell closed or open; vein 3A fused with 2A, without forming a basal fork; 1A present or absent; vein R_4 arise from the common stalk of M_1 and R_5. Hindwing with discal cell closed or open; 3A and 2A present separately; 3A present or absent; humeral cell present; humeral cell may be shorter, longer, narrower or broader than discal cell; humeral veins well developed or sometimes obsolete.

FOREWING





HINDWING