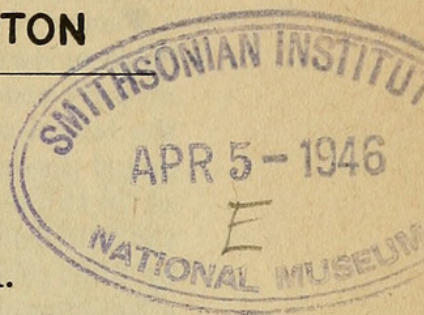


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



FOUR NEW SPECIES OF DICTYNA.

BY SHERMAN C. BISHOP AND CLAIRE RUDERMAN.¹

The new species here described are from the Cornell University collection and were made available through the courtesy of Dr. Helen Blauvelt. The types will be deposited at Cornell.

These four species are from a series of thirteen described, but not published, several years ago. The remaining nine species of the series have either been described recently by other workers or are in the process of description by Dr. W. J. Gertsch, of the American Museum, who kindly checked our material with his to avoid possible duplication of effort.

Dictyna cornupeta new species.

(Figs. 1-2.)

Male. Length, 3 mm. Cephalothorax with the head relatively broad, light yellow-brown with the radiating lines on the thorax and four longitudinal lines on the head darker. Sternum yellow in some individuals with the margin narrowly black and with a dark median stripe which does not reach the margin either in front or behind. Labium slightly dusky. Endites yellow. Chelicerae light dusky orange, concave, strongly bowed apart in the middle leaving an ovate opening between them closed below by a pair of opposed teeth; lateral ridges at base of chelicerae short, not well developed, not tooth-like. Legs and palpi pale yellow, tarsus of latter dark. Abdomen above pale yellowish with a basal lanceolate dark stripe followed by a diamond-shaped median spot and this by a double row of irregular spots connected by narrow chevrons and to the dark on the sides by oblique lines; venter yellowish or whitish, with two dark spots in front of the epigastric furrow, a dark spot at each end of this furrow, a dusky median area back of it and a dark spot at each end of the spiracular furrow.

Posterior eyes in a gently recurved line, equidistant, separated by

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two-thirds the diameter. Anterior eyes in a straight line, separated by a little less than the diameter and from the lateral by less than the radius.

Femur of palpus short, thicker distally. Patella short and broad. Tibia moderately long, viewed from the side gently convex above, more strongly concave below; viewed from above, the mesal side convex and the lateral side concave, the distal margin obliquely truncate. Tibia armed dorsolaterally at base with a short, stout, erect process bearing at tip two black teeth set in sockets. The embolus arises at the base of the bulb from a moderately swollen base; it is black and is strengthened by three thickened ribs. The conductor lies free from the cymbium for a considerable distance; it ends basally in a black pointed process which is curved around a circular passageway for the tip of the embolus.

Holotype male, Arizona: Texas Pass, Dragoon Mts., Aug. 21, 1917; paratype, Wyoming: Yellowstone Lake, Yellowstone National Park, Aug. 29, 1927, 1 male.

***Dictyna tridentata* new species.**

(Figs. 3-4.)

Male. Length, 2.8 mm. Cephalothorax dark mahogany brown, darker radiating lines on the thorax and longitudinal lines of fine white hairs on the head. Sternum dusky orange, very much darker on margin and posteriorly. Labium nearly black, lighter distally. Endites dark dusky orange. Chelicerae dusky with a tinge of orange showing through, strongly concave and strongly bowed apart in the middle, face of chelicerae flat transversely with mesal and lateral edges clean cut at a right angle, the lateral ridges at base well developed but without a tooth. Legs dull orange with faint, darker annulations on posterior femora and at the ends of the segments. Palpi dull orange. Abdomen reddish orange with distinct black markings; a basal median wedge-shaped mark constricted at posterior third, followed by a series of narrow chevrons connected laterally with a row of irregular spots; venter broadly dark medially, lighter on the sides.

Posterior eyes almost in a straight line, the median separated by more than the diameter and slightly farther from the lateral. Anterior eyes in a straight line, the median separated by nearly twice the diameter and from the lateral by two-thirds the diameter.

Femur of palpus rather stout, from above widened distally, gently curved downward. Patella short and broad. Tibia rather stout, viewed from the side concave below and convex above beyond the process; viewed from above, the mesal side gently convex, the lateral, concave, the distal margin gently concave, the lateral angle widened and produced forward; tibia armed dorsally near base with a stout, flattened, erect process gently curved forward and about three-fourths as long as width of segment, bearing at tip three black teeth in a row set in sockets. The embolus arises on the mesal side of the bulb from a distinctly swollen bulb-like base, passes along the edge of the cymbium to the tip of the bulb where it enters the groove of the conductor. The

conductor lies close to the cymbium throughout its length and ends basally in a narrow sharp-pointed process, finely denticulate at tip.

Holotype male, Wyoming: Summit of the Grand Teton Pass, July 4, 1933.

***Dictyna peragrata* new species.**

(Figs. 5-8)

Male. Length, 2 mm. Cephalothorax chestnut brown with dark radiating lines on the thorax and fainter longitudinal lines on the head. Sternum dark gray over orange yellow, dark at margin and behind. Labium dark at base. Endites yellow suffused with dusky. Chelicerae chestnut brown, strongly concave and bowed apart in the middle, lateral margin convex, the lateral ridges at base well developed. Legs pale yellowish suffused with dusky and with dark annulations at the ends of tibiae and metatarsi. Abdomen light above with a basal dark wedge-shaped mark connected with a broader black spot, followed after an interval by a black chevron and other indistinct markings. Sides of abdomen dark.

Posterior eyes oval, in a straight line, equidistant, separated by a little more than the long diameter. Anterior eyes in a straight line, the median separated by a little more than the diameter and from the lateral by a little less.

Femur of palpus nearly straight and cylindrical. Patella short, as broad as femur. Tibia short, viewed from the side strongly concave below, straight above beyond the two teeth; viewed from above widened distally on the outer angle, the mesal side straight, the lateral, concave, armed near base dorsolaterally with two nearly sessile black teeth set in sockets. The embolus arises from a swollen bulb-like base on the ventral side near base. It is rather stout and jet black. Near the distal end of bulb it enters the groove of the conductor. The conductor lies free from the edge of the cymbium for some distance, basally it is moderately thickened and ends in a narrow, slender slightly curved process, serrated along the inner margin of the tip.

Female: Length 2 to 2.25 mm. Similar to the male in form but generally lighter in color, the cephalothorax dusky orange yellow, the abdomen mottled gray and yellow, the basal mark, when present, brown. Epigynum of adult (Fig. 7) with a triangular median lobe, the apex directed forward and with the margins continued laterally. The openings, in mature individuals, show as dark oval cavities on either side of the median lobe. Posteriorly, the receptacles show through as dark round or oval blotches. In juvenile females (Fig. 8), the openings are indistinct and the receptacles are faintly outlined beneath the surface.

Holotype male. Washington: Edmonds, August 16, 1927; allotype, California: Miranda, June 4, 1936; paratypes, Washington: Friday Harbor, June-July, 1928, 3 males, 3 females; California: Miranda, June 4, 1936, 1 male, 3 females.

Dictyna francisca new species.

(Figs. 9-11.)

Male. Length, 2-2.2 mm. Cephalothorax reddish orange with darker radiating lines to dark brown in preserved specimens, head high and narrow, clothed with five longitudinal rows of white hairs. Sternum dark grayish orange narrowly black at margin. Labium darker, endites a little lighter. Chelicerae dull orange brown, long, concave, bowed apart in the middle, the lateral ridges at base short, thin, forming a small but distinct tooth. Legs and palpi pale orange yellow. Abdomen yellowish white above, with darker reticulations and with a dark median basal mark which is strongly constricted and then enlarged to form a distinct median spot; farther back there is a double row of 3 or 4 dark spots, the last two pairs connected by transverse bars which are sometimes very heavy. Sides of abdomen grayish to blackish, venter broadly pale across the middle, dusky in front and behind. Abdomen clothed with long, white to light brown hairs.

Posterior eyes in a gently recurved line, equidistant, separated by the diameter. Anterior eyes in a gently procurved line, the median smaller than the lateral, separated by one and one-half times the diameter and from the lateral by a little less than the diameter.

Femur of palpus nearly straight and cylindrical. Patella short, strongly convex above. Tibia rather long, evenly convex above and more strongly concave below, viewed from above the mesal side nearly straight with the distal angle cut off, the lateral side concave; ventrolaterally the margin is thinned out and is somewhat widened distally. Tibia armed dorsolaterally at base with two black teeth borne on a very low tubercle. The black, rather stout embolus arises from a rather low quadrate bulb-like base on the mesal side of the bulb near the base. It enters the conductor near the apex of the bulb and divides into three branches which can be seen through its wall. The conductor lies close to the edge of the cymbium throughout its course; it is only moderately thickened basally and terminates in a rather long, nearly straight process which is thin, dorsally black, ventrally colorless and gently spirally twisted, the tip is very finely granulate, bluntly rounded with a point at one side.

Female. Length, 2.1-2.5 mm. Similar to the male in coloration, the pattern on the abdomen in some specimens more distinct. The epigastric plate orange, darker than rest of the venter, the median lobe of epigynum broad, notched posteriorly and limited on each side by a chitinated ridge which is continued laterally. The openings are beneath the anterior edge of the ridges.

Holotype male, allotype female. California: San Francisco, sand dunes, November 11, 1907; paratypes, 1 male, 1 female, same data. California: Christine, May 30, 1936, 1 male; Fort Ross, May 28, 1936, 1 male, 2 females; Gualala, May 29, 1936, 1 male, 13 females.

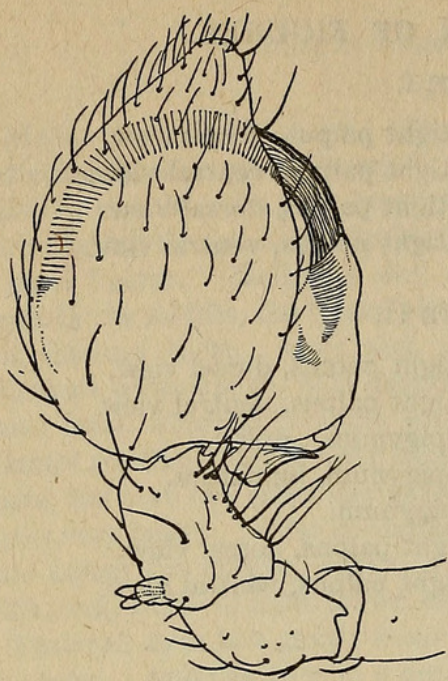
EXPLANATION OF FIGURES.

PLATE I.

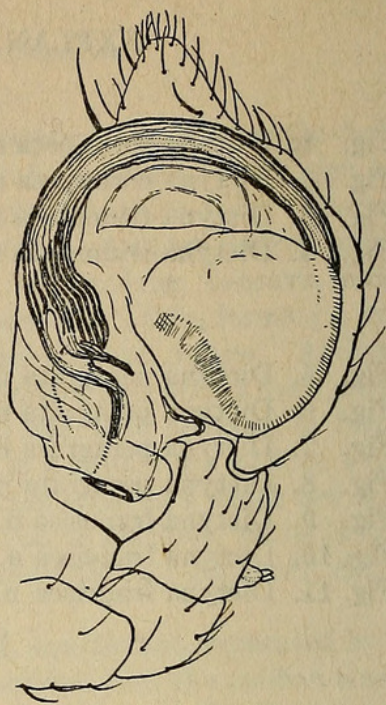
- Fig. 1. *Dictyna cornupeta* n. sp. Right palpus, dorsal view.
- Fig. 2. *Dictyna cornupeta* n. sp. Right palpus, ventral view.
- Fig. 3. *Dictyna tridentata* n. sp. Right palpus, dorsal view.
- Fig. 4. *Dictyna tridentata* n. sp. Right palpus, ventral view.

PLATE II.

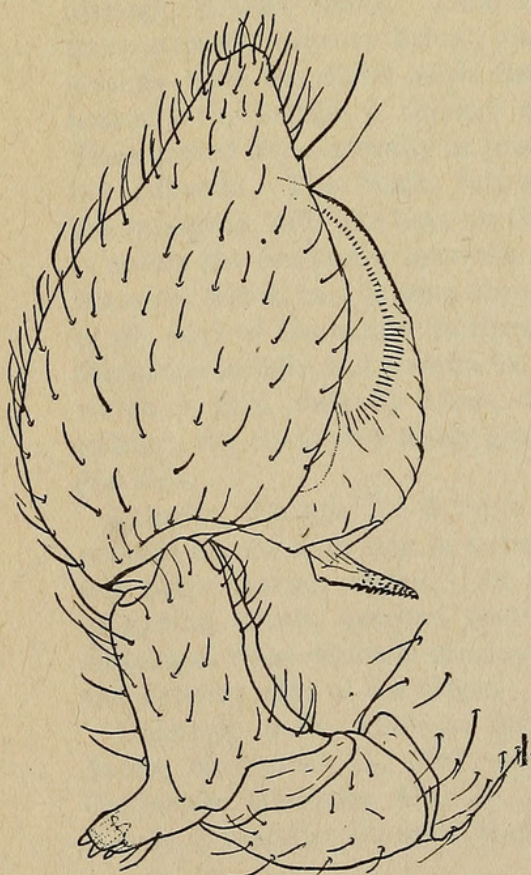
- Fig. 5. *Dictyna peragrata* n. sp. Right palpus, dorsal view.
- Fig. 6. *Dictyna peragrata* n. sp. Right palpus, ventral view.
- Fig. 7. *Dictyna peragrata* n. sp. Epigynum, adult.
- Fig. 8. *Dictyna peragrata* n. sp. Epigynum, immature.
- Fig. 9. *Dictyna francisca* n. sp. Epigynum.
- Fig. 10. *Dictyna francisca* n. sp. Right palpus, dorsal view.
- Fig. 11. *Dictyna francisca* n. sp. Right palpus, ventral view.



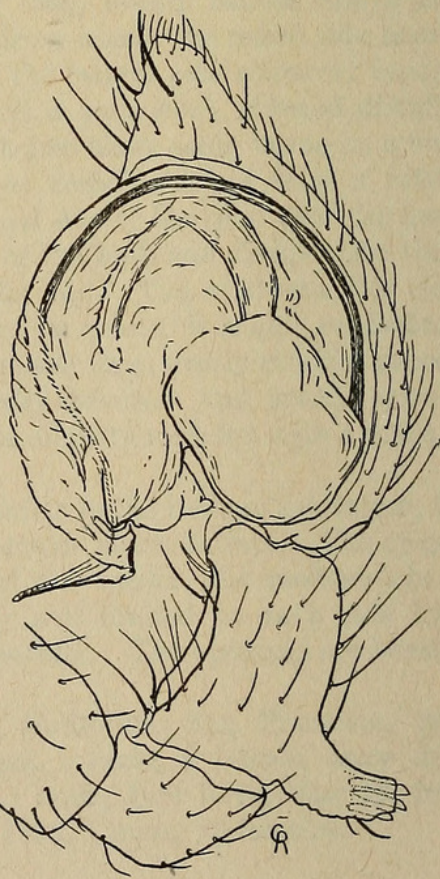
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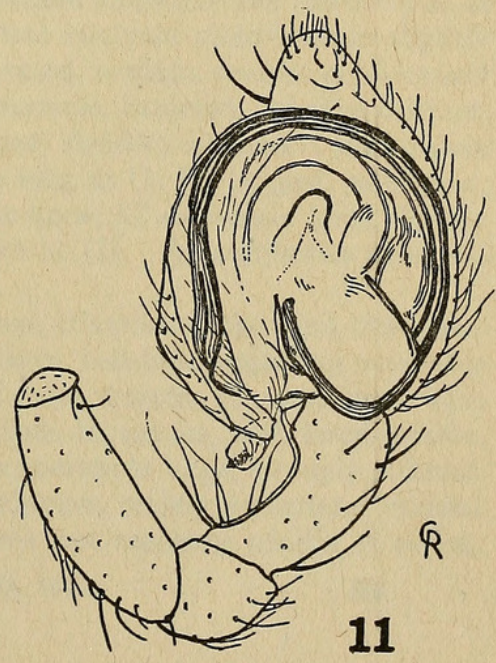
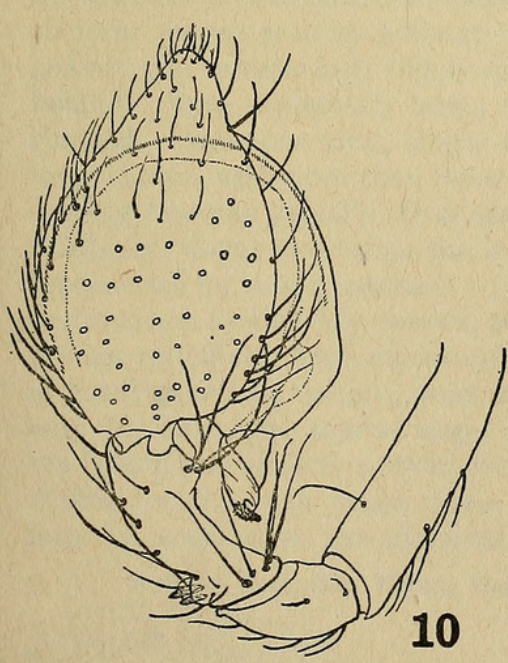
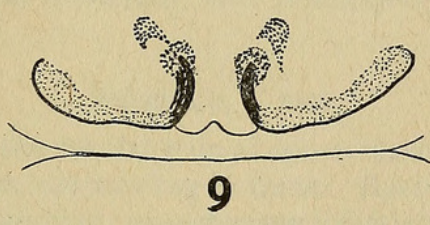
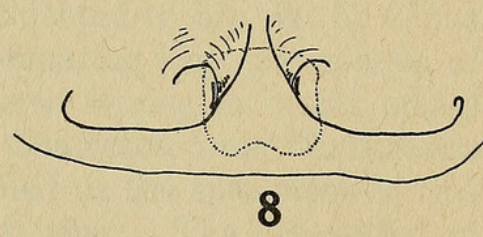
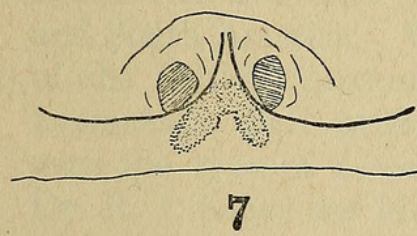
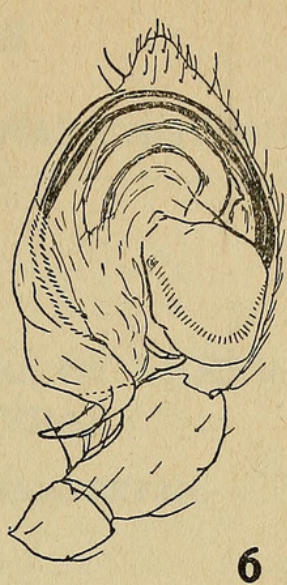
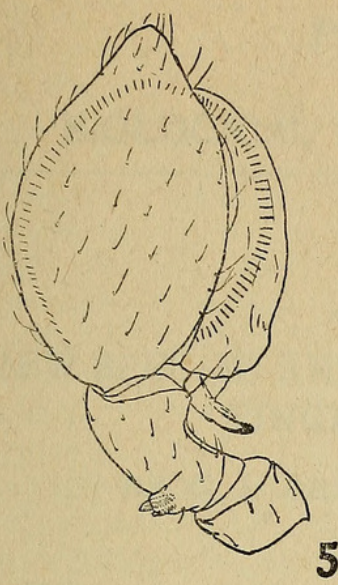
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Bishop, Sherman C. and Ruderman, Claire. 1946. "Four new species of Dictyna." *Proceedings of the Biological Society of Washington* 59, 1-8.

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