

ROBERT FOUTS

REPORT ON A SMALL COLLECTION OF PARASITIC HYMENOPTERA  
FROM ITALIAN SOMALILAND

The material upon which this study is based was collected by Professor Guido Paoli, Director of the R. Osservatorio di Fitopatologia at Genova, and Dr. A. Chiaromonte in Italian Somaliland in 1926 and was recently submitted to me for identification. In the paper will be found descriptions of two new species of *Bethylidae*, one of *Calliceratidae*, five of *Scelionidae*, and one of *Platygasteridae*.

## BETHYLIDAE

1 - *Goniozus similis*, new species.

Female. (Fig. 1) - Length 2.6 mm. Head (fig. 2) scarcely wider than the thorax, seen from in front nearly circular in outline, pointed

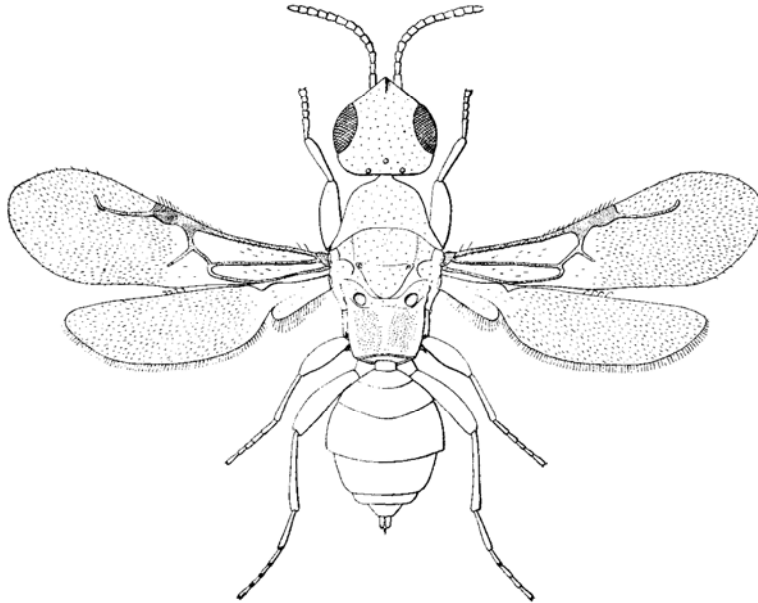


Fig. 1 - Female of *Goniozus similis* Fouts. (After Paoli).

at the clypeus, truncate above, rounded on the sides; frons reticulate, with numerous fair sized punctures which are for the most part three or

four times their diameter distant from one another; average distance between punctures about .05 mm.; clypeus with a sharp carina which extends upward on the frons to just above the base of the eye; eyes two and one-third times as long as head above them; thorax one and three-fourths times as long as wide, subconvex above; pronotum, mesonotum, and scutellum sculptured like the frons; pronotum one and one-half times as long as the mesonotum, one and two-thirds times as long as the scutellum; pronotum laterally longitudinally striate; mesopleura shining, faintly reticulate, with a large deep pit above; mesonotum with a slight median longitudinal depression anteriorly; propodeum margined laterally and posteriorly, the inferior face about as long as the superior face; superior about one and three-fifths times as wide as long, with a median longitudinal smooth area which widens anteriorly; except for this smooth area the superior face is diagonally aciculate, with more or less distinct reticulation; laterally the propodeum is reticulate, the longitudinal lines stronger; abdomen about two-thirds the length of the thorax, black; antennae, trochanters, tibiae and tarsi, brownish-yellow; front and hind femora dark brown; middle femora lighter brown.

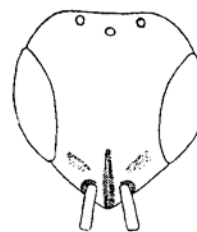


Fig. 2 - Head, front view, of *Goniozus similis* Fouts.

Two specimens collected at Villaggio Duca degli Abruzzi in southern Italian Somaliland, September 11, 1926, and recorded as being parasitic on *Thalassodes digressa* <sup>(1)</sup>. Type in Genoa Museum; paratype in the author's collection.

This species differs from *maurus* Marsh. in leg color (red in *maurus*), and from *maurus* and *triangulifer* Kieff. in having the eyes a little more than twice as long as the head above them.

## 2 - *Epyris bicolor*, new species.

Female. - Length 7.8 mm. Head (fig. 3) scarcely longer (from apex of clypeus to vertex) than wide, as wide as the thorax, subquadrate, the sides gently, and the angles more strongly, curved; length of head behind eye two-thirds the length of the eye, a third of the total length of the head; frons and pronotum with close reticulation, with numerous strong punctures, the average distance between punctures about twice their diameter; punctures are absent along a median

(1) Mentioned by Prof. Paoli as *Goniozus* sp. in his « Prodomo di Entomologia agraria della Somalia Italiana » published at Firenze, 1931-33.

line on the pronotum; mesonotum closely reticulate, elevated on anterior half, with a few setigerous punctures along the base of this elevation; parapsidal furrows more widely separated on anterior half of mesonotum, becoming larger and deeper posteriorly, their apices rounded, not quite attaining the apex; pronotum rounded laterally, a little over twice as long as the mesonotum, about two and three-fourths times as long as the scutellum; scutellum triangular, rounded posteriorly, with a deep oblique pit at each anterior angle, with a few strong punctures around the lateral and posterior margins; superior face of propodeum subquadrate, slightly shorter

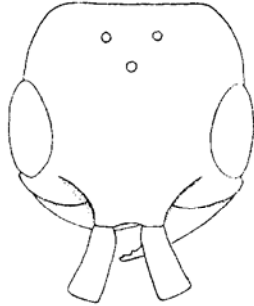


Fig. 3 - Head, front view, of *Epyris bicolor* Fouts.

than the pronotum, strongly margined laterally and posteriorly and with a strong median ridge which extends, with a short interruption below the posterior margin, down on the inferior face to the apex of the propodeum; on either side of this median ridge, about a third the distance to the lateral margin, is another equally strong regular longitudinal ridge; these two ridges converge slightly on posterior half; midway between each of these two ridges and the central one is another weaker ridge which follows a somewhat zig-zag course; from each of the lateral angles a smaller transverse ridge extends to the larger longitudinal one on either side, thus presenting a ladder-like appearance on each side of the irregular ridge; the area between the lateral margin of the propodeum and each of the two strong longitudinal ridges referred to above is transversely striate, more strongly so mesad; inferior face of the propodeum nearly perpendicular, margined laterally and above, with a median ridge which becomes gradually flattened above and disappears just below the superior margin; on lower third the inferior face is very strongly transversely ridged; above this ridged or carinate area the surface is closely reticulate; thorax a little over twice as long as wide, narrowed and rounded anteriorly, truncate posteriorly; mesopleurae convex, visible from above; abdomen a little narrower and shorter than the thorax, pointed apically; black; antennae, tibiae, and tarsi, reddish-brown; terminal three segments of abdomen and apex of fourth segment rufous; wings extending to about the apex of the third abdominal segment, light brown in color.

One specimen collected at Villaggio Duca degli Abruzzi in southern Italian Somaliland, March 1, 1926.

This species differs from *valens* Kieff. in having the head rounded behind, the head behind eye two-thirds the length of the eye, and the pronotum a little over twice as long as the mesonotum (three times as long in *valens*).

## CALLICERATIDAE

3 - *Calliceras reticulata*, new species.

Female. - Length 1,2 mm. Head one and one-half times as wide as long, 1,2 times as wide as the thorax; frons, vertex, and dorsum of thorax reticulate and rather thickly clothed with short whitish hairs; frontal impression deep, large, extending to lower third of eye, aciculate above; frons just above the impression irregularly transversely wrinkled; genae reticulate, with only a few short hairs; a sharp carina dividing vertex and occiput and extending downward on each side nearly to the mandibles; scape about four times as long as thick at its swollen basal part, thinner on distal third, about as long as the five following joints combined, a little thicker proximally than the club joints, three times as thick as the pedicel; pedicel about three times as long as thick, twice as long as the third joint; third joint as long as fourth and fifth combined, twice as long as thick, as thick as the fourth; fourth joint as thick as long, as long as the fifth, a little thinner than the fifth; fifth sixth, and seventh joints equally long, increasing in thickness in order named, distinctly longer than thick; joints eight to ten a little thicker than the seventh, subequal in thickness; eighth joint distinctly longer than the ninth one and one-half times as long as thick; ninth joint a little longer than thick, about half as long as the tenth, the latter two and one-third times as long as thick, pointed apically; thorax 1,4 times as long as wide, 1,3 times as high wide, strongly convex above; median groove on mesonotum sharply indicated; scutellum convex, evenly reticulate, with short whitish hairs arranged in rows; propodeum short, with three strong yellowish tooth-like projections, one median and two lateral; wings hyaline, extending a little way past the apex of the abdomen; abdomen a little wider than the thorax, not quite as wide as the head, 1,7 times as long as wide, 1,35 times as long as the thorax, broad basally, pointed apically, subconvex dorsally, without sculpture except basally on the second tergite; second tergite 1,3 times as long as wide, strongly striate on basal fifth; black; scape reddish-brown; pedicel and following three joints brownish; legs reddish-brown; the coxae and femora darker.

Twelve specimens from Villaggio Duca degli Abruzzi, in southern Italian Somaliland, collected October 1926. They are recorded doubtfully as having been reared from a Braconid, *Apanteles aethiopicus* Wlkn.. Type and five paratypes in the Genoa Museum; six paratypes in the author's collection.

## SCELIONIDAE

4 - *Scelio clarus*, new species.

Female. - Length 3.6 mm. Head one and one-half times as wide as long, a little wider than the thorax, seen from above feebly convex in front, full behind the eyes, arcuately excavated behind; viewed from the side the head is full above and behind the eyes, the cheeks nearly as wide as the eyes; frons shining, not closely reticulate, with a smooth unsculptured area just above antennae; malar space and frons up to lower margin of eye strongly carinate; rest of frons, except the smooth area mentioned, likewise vertically carinate but the carinae more widely spaced and broken about the middle of the eye; on upper frons the carinae are joined together by lateral ones and some large enclosed areas are formed as a result; vertex smooth, with indistinct sculpture, a few transversely directed irregular raised lines present; vertex separated from the occiput by a sharp carina which extends down on the cheeks to the mandibles; occiput with poorly defined reticulation, the areas much smaller than those on upper frons; cheeks



Fig. 4 - Antenna of *Scelio clarus*  
Fouts.

reticulate, the areas large, like those on the mesonotum laterally; malar carinae extending along outer margin of eye up on cheek to middle of eye; antennae shown in fig. 4; body with flattened hairs as in *aburiensis* Kieff.; these hairs most numerous on the frons and laterally on the body and are

of a dead white color; they are sparse on the vertex and on the dorsum of thorax and abdomen; thorax about one and one-fourth times as long as wide, about as wide as the abdomen, widest in front of the tegulae, the pronotum being angulate laterally; pronotum reticulate with the areas very large, larger than on the mesonotum; mesonotum and scutellum grossly reticulate, with more or less definite longitudinal lines, the cross lines somewhat irregular in position and direction; mesonotum about twice as long as the scutellum; propodeum reticulate, with three large enclosed areas medially on anterior margin; lateral ridges distinct but not prominent; just below these ridges, on the sides, especially posteriorly, the propodeum is covered with mode-

rately long silvery pubescence; on posterior half between the lateral ridges the propodeum is smooth, without sculpture except an incomplete median groove; propodeum not angulate posteriorly; abdomen two and one-third times as long as wide, elliptical in outline, pointed apically, about as wide as the thorax; lengths of tergites: 26, 24, 43, 43, 28, 7; widths of the same: 47, 68, 79, 75, 54. 24; dorsum of abdomen traversed longitudinally by numerous fine raised lines, the intervals reticulate; third and fourth tergites medially reticulate, the raised lines not present; black; tibiae and tarsi brown; pedicel brownish apically; wings tinged with brown, paler proximally.

One specimen collected at Villaggio Duca degli Abruzzi in southern Italian Somaliland, March 1926.

This species differs from other Ethiopian forms in having white flattened hairs on the body. *Aburiensis* Kieff. has similar hairs but they are golden-yellow in color.

##### 5 - *Hadronotus rugulosus*, new species.

Female. - Length 1,3 mm. Head nearly twice as wide as long, slightly wider than the thorax, truncated in front (seen from above), broadly emarginate behind; frons with a shallow antennal depression below, strongly transversely striate, the striae curving upward in an even arc; extreme upper part of frons transversely wrinkled; vertex obscurely finely wrinkled and punctate, densely reticulate, bounded posteriorly by a sharp arcuate carina, this carina extending down on the cheeks on either side to the bases of the mandibles; occiput with dense reticulation, finely transversely striate except just below the superior carina; ocelli widely spaced, the lateral ones less than their diameter distant from the eye margin; scape slightly curved, a little longer than the club, reaching to anterior ocellus; pedicel about twice as long as thick, one and one-half times as long as the third joint, the latter nearly as long as joints four and five combined, a little less than twice as thick; fourth joint as thick as long, thicker than the third; fifth joint transverse; club six-jointed, the joints, except the last one, transverse; last joint conical, a little longer than wide; thorax as wide as long, convex above, as long as the abdomen; pronotum visible from above only on the sides; mesonotum rugulose, the wrinkles longitudinal (transverse anteriorly); scutellum longitudinally wrinkled; abdomen a little longer than wide, not quite as wide as the thorax, nearly circular in outline, with the anterior margin broadly and shallowly emarginate; first tergite about five times as wide as long, with a sharp, raised

anterior margin; just below this raised margin is a row of pits between which arise carinae that extend posteriorly to the narrow polished margin of the segment; segments three to six inclusive with broad polished posterior margins; second tergite three and one-half times as wide as long, one and one-half times as long as the first, punctate and longitudinally wrinkled; third and fourth tergites likewise wrinkled and punctate, the latter more finely so; last segment half as long as the fourth, as long as the fifth; black; scape brownish at apex; flagellum piceous; femora at bases and apices, tibiae, and tarsi, brownish.

One specimen from Villaggio Duca degli Abruzzi, in southern Italian Somaliland, collected in October 1926.

This species differs from *festivus* Kieff. in having the body entirely black and from *saxatilis* Kieff. in having the second tergite closely punctate and longitudinally wrinkled. Both of these species were described from the Seychelles Islands.

6 - **Telenomus antennalis**, new species.

Female. - Length 7 mm. Head not quite twice as wide as long, a little wider than the thorax, as wide as the abdomen, feeble convex in front, arcuately excavated behind, the vertex separated from the occiput by a ridge; frons smooth, with an indistinct reticulate sculpture; cheeks narrow, oblique, not margined; antennae clavate, the club not well differentiated; joints of antennae with short whitish hairs; thorax slightly longer than wide, nearly twice as long as the head; mesonotum subconvex, covered with short whitish pubescence and with a more or less distinct reticulate sculpture; parapsidal furrows not present; scutellum transverse, flattened, without distinct sculpture; abdomen about one and one-third times as long as wide, a little longer than the thorax, subconvex above; first tergite about four times as wide as long, without sculpture except for some short grooves anteriorly; second tergite six times as long as the first, 1.3 times as wide as long, its length a little more than half the total length of the abdomen, without sculpture except for some short grooves at the anterior margin; black; antennae brown; legs brown, the trochanters, femora distally, tibiae proximally and distally, and tarsi, yellowish; wings hyaline, with long cilia.

One specimen collected at Villaggio Duca degli Abruzzi in Italian Somaliland in 1926. It is recorded as having been collected on leaves of *Cassia fistula* infested by *Lecanium* sp.

Genus **Microphanurus** Kieff.

## Key to Ethiopian Species:

1. Club of antenna 4-jointed; legs clay-yellow; coxae black . . . . .  
    . . . . . *mahensis* (Kieff.)  
    Club 5-or 6-jointed . . . . . 2
2. Mesonotum and scutellum closely and finely reticulate (and longitudinally rugulose in *africanus*). . . . . 4  
    Mesonotum coarsely reticulate . . . . . 3  
    Mesonotum finely punctate; scutellum polished . . . . .  
    . . . . . *catacanthae* (Ashm.)
3. Frons carinate . . . . . *carinifrons* Fouts  
    Frons shagreened . . . . . *aloyssi-sabaudiae* Fouts
4. Legs yellow . . . . . *seychellensis* (Kieff.)  
    Legs reddish - brown, the femora mostly dark brown, the coxae black . . . . . *africanus* Fouts

7 - **Microphanurus carinifrons**, new species.

Female - Length 1.1 mm. Body robust, 2.4 times as long as wide across tegulae; head 2.6 times as wide as long medially, 1.2 times as wide as the thorax, 1.3 times as wide as the abdomen, shaped as in *africanus* and with a ridge separating vertex and occiput as in that species, this ridge extending to mandible; frons with a low median ridge extending nearly to anterior ocellus, this ridge bifurcated above antennal insertion; a narrow area along the ridge on either side smooth, without sculpture; frons below and on the sides traversed vertically by a number of strong complete carinae, those toward the center curving sharply inwardly and terminating near the median ridge referred to above; exterior to these sharply curved ridges are others which extend upward without curving as far as the middle of the eye; upper frons rugulose, the wrinkles obliquely directed toward the median ridge; vertex rugose, closely set with large punctures; cheeks with beaded reticulation; scape about as long as the six following joints combined, about six times as long as thick; pedicel twice as long as thick, nearly as long as joints three and four combined; third joint twice as long as wide, longer than joint four, thinner than the pedicel; fourth joint longer than thick, longer than the fifth; fifth a little thicker than the fourth, about as thick as long, longer than the sixth, the latter transverse; seventh broadly transverse, wider than the sixth, nearly as wide as the eighth; joints eight to ten transverse; eleventh joint as thick as long, longer than the tenth, subacute apically; thorax one and one-sixth times as wide as long, scarcely wider



than the abdomen, strongly and evenly convex above; mesonotum and scutellum uniformly coarsely reticulate, the enclosed areas appearing as thimble-like punctures; abdomen nearly one and one-fourth times as long as wide, widest at the apex of the second segment, broadly rounded posteriorly, the last segment appearing as a small projection at the apex of the abdomen; petiole about four times as wide as long, without a transverse depression or constriction, with the anterior margin straight, not excavated as in *africanus*, medially with about eight deep longitudinal grooves, these grooves five or six times as long as wide, separated from one another by narrow ridges; laterally the grooves are smaller and less regular, becoming shorter toward the edge of the segment; second tergite one and one-sixth times as wide as long, widest posteriorly, the sides straight, rounded on posterior angles, with about twenty-two fine longitudinal carinae which extend from the base nearly to the apex medially but which become shorter laterally and are not present on the posterior angles and along the sides of the tergite; the intervals between the carinae are traversed by numerous fine impressions and near the terminals of the carinae the sculpture becomes definitely, if finely, reticulate; tergites following the second short, finely aciculate; black; antennal club and coxae dark brown; antennal joints two to seven yellowish-brown; scape yellow, darker near apex; legs yellow, the femora brownish on proximal two-thirds.

Male. - Length 0.94 mm. Similar to the female; head 2.6 times as wide as long; thorax a little wider than long; antennae with short pubescence; abdomen one and one-fifth times as long as wide, shaped as in the female, with broadly rounded apex; petiole about three times as wide as long, sculptured as in the female; scape reddish-brown, the pedicel brownish, the terminal joints somewhat darker.

Five females and one male collected at Villaggio Duca degli Abruzzi in Italian Somaliland, in 1926.

The type and one paratype were bred from eggs of *Nezara sp.*, the remaining specimens from breeding of branch of Cotton, probably infested with eggs of *Nezara* and were collected on March 1, 1926.

Type, allotype and 2 paratypes in Genoa Museum; two paratypes in the author's collection.

8 - *Microphanurus africanus*, new species.

Female. - Length 0.86 mm. Body robust, about twice as long as wide across the tegulae; head three and one-third times as wide as

long, one and one-sixth times as wide as the thorax, a little more than one and one-fourth times as wide as the abdomen, viewed from above feebly convex in front, broadly and shallowly excavated behind; frons medially below center smooth, without sculpture, with a short longitudinal ridge from between bases of antennae as far up as the lower eye margin; on either side of this ridge are numerous fine transversely directed carinae; laterally and on upper third the frons has a fine beaded sculpture; this beaded sculpture continues on to the vertex, completely covering the latter; vertex separated from the occiput by a ridge which extends down on the cheeks to the mandibles; on the cheeks the ridge is much sharper, with a knife-like edge; lateral ocelli less than their diameter distant from the eye margin; eyes bare; scape about as long as the following five joints combined, slightly curved, about five times as long as thick; pedicel twice as long as thick, as long as but a little thicker than the third joint, nearly as long as joints four and five combined, a little thinner than the fifth; fourth joint as thick as long, longer and thinner than the fifth; sixth joint transverse, about as long as but thicker than the fifth; seventh joint about one and one-half times as long as the sixth, slightly thicker than the sixth, one and one-half times as wide as long; this is the first club joint and, with the other joints following it, is black in color, sharply differentiated from the reddish-brown joints preceding it; joints eight and nine subequal, a little thicker than the seventh, nearly twice as thick as long; tenth joint one and one-half times as thick as long, thinner than the ninth, thicker than the eleventh which is about as thick as long, conical; thorax one and one-sixth times as wide as long, one and one-eighth times as long as the abdomen, widest at tegulae, strongly convex above; mesonotum reticulate and longitudinally wrinkled, more strongly wrinkled posteriorly, without a trace of parapsidal furrows; scutellum sloping posteriorly, its surface continuing the downward slope of the mesonotum, with an indistinct reticulate sculpture; metanotum short, unarmed; abdomen one and one-fifth times as wide as long, feebly convex above; first tergite nearly six times as wide as long (on median line), longer on the sides, the front margin being arcuately emarginate; immediately behind the sharply upturned front margin the first tergite has a number of short longitudinal ridges; second tergite 1.7 times as wide as long, with parallel sides (posterior angles rounded), finely evenly striate to posterior third; following segments concealed beneath the second; black; antennal joints one to seven and legs reddish-brown, the femora mostly dark brown; coxae black.

Male. - Length 0.87 mm. Similar to the female; scape four times as long as thick, as long as the following three joints and half of the fifth combined; pedicel a little longer than thick, thinner basally; third joint one and one-half times as long as thick, longer than the pedicel, as wide as but longer than the fourth joint; fourth joint a little longer than thick, longer and thicker than the fifth; sixth joint about as wide as long, nearly as wide as the fifth, as long as the seventh, a little thinner than the seventh; following joints missing.

One female and one male reared from Lepidopterous? eggs at Villaggio Duca degli Abruzzi in Italian Somaliland on March 1, 1926.

PLATYGASTERIDAE

9 - *Synopeas paolii* new species.

Female. - Length 1.0 mm. Head twice as wide as long, a little wider than the thorax, not emarginate behind, with a sharp carina separating vertex and occiput; frons, genae, vertex, and occiput finely closely reticulate; frons without striae; antennae as in fig. 5, with pubescence on joints seven to ten and with colorless spines and sensory

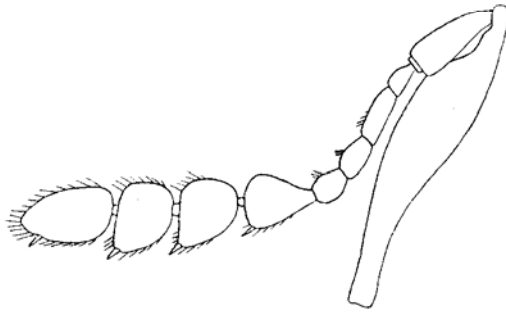


Fig. 5 - Antenna of *Synopeas paolii* Fouts.

setae as in *neuroteri* Kieff.; thorax as wide as the abdomen, 1.4 times as long as wide, a little higher than wide; mesonotum convex, faintly reticulate, behind with a narrow median projecting lobe which bridges the furrow between mesonotum and scutellum, touching the latter anteriorly; scutellum, furrow between mesonotum and scutellum, petiole and base of second tergite with dense silvery pubescence; cutellum without a spine or tubercle but with a median longitudinal

rounded ridge, this ridge bare, without pubescence; abdomen 1.1 times as long as wide, strongly convex above and below, sharply pointed at apex; second tergite as wide as long, without sculpture; tergites 3-5 with a transverse row of fine punctures; last tergite triangular, about as long as the three preceding combined, with impressed reticulation; black; antennae and legs bright golden yellow; antennal club brown.

Fourteen specimens from Villaggio Duca degli Abruzzi, in Italian Somaliland, collected in 1926. Eight were collected on leaves of *Cassia fistula* infested with *Lecanium sp.* and three were on leaves of *Bohemia nivea* in August.

Type and six paratypes in the Genoa Museum; seven paratypes in the author's collection.

Several specimens are somewhat smaller than the type and may be dark brown in color. One specimen is only 0.8 mm. in length and has the thorax and abdomen reddish - brown.

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