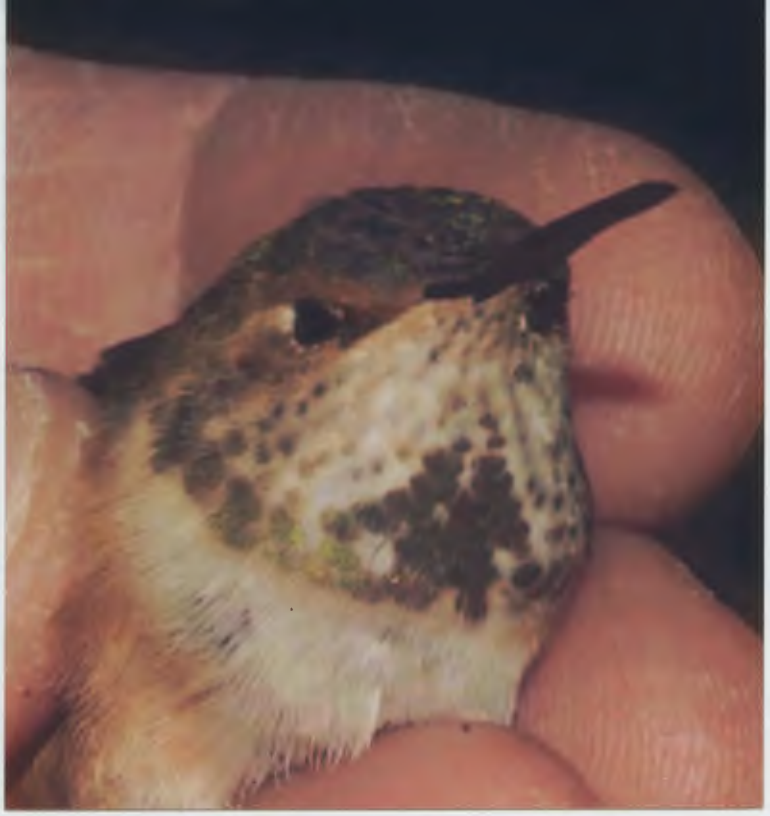


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AHY-F Rufous
12/21/04 Franklin Co., PA
R2
R5 (3.78 mm)
AHY-F Rufous
11/7/04 Lehigh Co., PA
R2
R5 (3.69 mm)
AHY-F Rufous
10/31/07 Franklin Co. PA
R5 (4.17mm)
AHY-F Allen's
12/12/09 Lancaster Co., PA
R2
R5 (2.41mm)

PENNSYLVANIA RARE BIRD REPORT FORM
This form is presented as a convenience and guide. It can be used if desired, but is not necessary for submitting a report. Species requiring documentation are those on the Review List or not on the Official List of Birds of Pennsylvania.
Send documentation to:
Nick Pulcinella, Secretary
Pennsylvania Ornithological Records Committee
613 Howard Ave.
West Chester, PA 19380
nickpulcinella@verizon.net
****

SPECIES (common and scientific name): **Allen's Hummingbird (*Selasphorus sasin*)**

Subspecies (if known): **Presumably nominate *sasin* given known migratory behavior, but only distinguishable from *sedentarius* with wing, tail, and bill measurements. Note that a presumed *sedentarius* was banded and ID'ed in LA within the past decade.**

NUMBER OF INDIVIDUALS: One **SEX(ES):** Female
AGE(S) AND PLUMAGE(S) (e.g. immature; adult in breeding plumage; year for gulls; basic or alternate if you prefer those terms; state of molt if applicable): **AHY or adult in active body and wing molt (inner pp fresh, outer pp retained).**

DATE OF OBSERVATION: 12 Dec 2009 TIME: 1504 to about 1615 EST
LOCATION (city, borough, township): **Bareville-Leola, Upper Leacock Twp.**
EXACT SITE (e.g. name of park, lake, road): **Raudenbush residence at 106 Battens Circle off Butter Ave.**

OBSERVER REPORTING:
Name: **Justin Bosler**
Address: **2074 Jarvis Road**
City: **Lancaster** State: **PA** ZIP: **17601**
e-mail (optional): **justin.bosler@gmail.com** phone (optional): **717-475-9998**
OTHER OBSERVERS (only those who saw and identified the bird with you): **Eric Witmer, Cameron Rutt, Frank Haas, Barbara Haas, Gordon Bosler, Devin Bosler, et. al.**

HABITAT (e.g. mowed field, woodland edge, any other details): **Sparsely vegetated suburban yard adjacent to rural agricultural land. Plantings included mostly non-native, exotics such as arborvitae, Bradford pear, weeping cherry, crabapple, ornamental grasses, etc. with some horsebrush-like sage beneath the hummingbird feeder. A patch of conifers nearby included a couple white pine and a few fir/ spruce.**

DISTANCE TO BIRD: As close as 20-25 meters.

VIEWING CONDITIONS (sky, weather, position of sun relative to you): **Fair skies with sun below 45° and to the southwest. Shaded, poorly lit viewing conditions when the bird was at the feeder. However, the bird was well lit, with afternoon sunlight, where it chose to perch in tops of bare deciduous trees.**

OPTICAL EQUIPMENT USED: Nikon EDG 8x42 binoculars

DESCRIPTION (Include as much detail as you observed – size relative to other species present; "jizz"= e.g. posture, body shape, and proportions; colors and patterns of plumage; bill, eye, and leg characteristics; other features relevant to this individual): **A small hummingbird with a medium-length all black bill and a considerable amount of rufous in plumage. Upperparts were mostly emerald green. Underparts were whitish with an extensive wash of rufous on the sides, flanks, and rump edges. Undertail coverts rufous. Face, including supercilium, and sides of gorget washed rufous. Gorget whitish and lightly speckled with green to bronze with iridescent reddish to coppery feathering concentrated at center in triangular or diamond shape. Lower edge of gorget lined with green and bronze feathering. Tail extended past wingtips. Outer rectrices with extensive rufous, tips white. Large cluster of iridescent feathers in gorget, lack of a white tip on R2, and smooth bill lacking any striations/ corrugations (per Scott Weidensaul) indicate that it's an adult.**

(Please use an additional page if necessary.)

BEHAVIOR (be as detailed as possible about what the bird was doing): **Hovering at feeder to lap up sugar water or perched, sunning itself, in a nearby tree. A couple of high flights with some hovering and tail flicking were intriguing. No fly-catching or gleaning observed.**

VOCALIZATIONS: A sharp, rich "zeek zee'kik" given in flight.

SUPPORTING EVIDENCE IF ANY:
Photograph __X__ Video recording _____ Audio recording ____ Drawing _____
Photographer/recorder/illustrator:
Name: **Gordon Bosler**
Address: **2074 Jarvis Road**
City: **Lancaster** State: **PA** ZIP: **17601**
e-mail (optional): **gordonb57@comcast.net** phone (optional): **717-397-9115**
Please include a copy of the photograph or recording with your report, and accompany it with a complete written documentation if the identification is obvious to you. If you made a drawing, please include it.

IF THIS IS A DEAD BIRD:
General condition
_____
If collected (by permit), location and number of specimen if known_____

SEPARATION FROM SIMILAR SPECIES (how you eliminated others): **Female Broad-tailed Hummingbird eliminated by rufous facial markings, centralized, diamond-shaped gorget patch, relatively short and narrow tail, extensive rufous in tail, and voice. Female Rufous Hummingbird eliminated through careful in-hand examination and measurements of R2 and R5 (as documented by Scott Weidensaul). Rufous eliminated by lack of emargination at tip of R2 and a much narrower R5. These characters were difficult to impossible to assess through optics in the field. Softer call note of Allen's tough to judge without side-by-side comparison.**

DISCUSSION – Anything else relevant to the observation that will aid the committee in evaluating it:
See Scott Weidensaul's report. Homeowner reports that the hummingbird had been present since Sep.

(Please use an additional page if necessary)
PREVIOUS EXPERIENCE WITH THIS AND/OR SIMILAR SPECIES:
Some experience from birding trips to coastal CA and at least two observations of overwintering Allen's in LA. A lot more experience with Rufous from CA, OR, and LA.

ARE YOU POSITIVE OF YOUR IDENTIFICATION ? (why or why not) : **Yes, 100% positive with the help of bander Scott Weidensaul.**

REFERENCES CONSULTED:
During observation: **None**
After observation: **Peterson Field Guide to Hummingbirds of North America (Williamson, 2001).**
DATE OF THIS REPORT: _____
SIGNATURE OF OBSERVER _____

(Scott Weidensaul)

ALLEN'S HUMMINGBIRD
Selasphorus sasin

Banded 12/12/09
106 Battens Circle
Leola, PA 17540 (Lancaster Co.)
40 05' 41.34"N, 076 09' 02.01"W

Band number: L04108
Age: AHY (after hatching year)
Sex: F

Wing chord: 42.45 mm
Tail: 26 mm
Exposed culmen: 17.73 mm
Percent grooving on maxilla: 5%
Iridescent gorget feathers: 15
Weight: 3.36 g
Fat: 1 (scale 0-5)
R5 width: 2.41 mm

First obs.: Late August 2009
Last obs.: Dec. 29, 2009

The bird was first observed at a backyard feeder in late August 2009 by the homeowner, Debra Raudenbush, who assumed it was a late rubythroat. It came to my attention 12/11/09, and the next day I arranged to band what I assumed would be a rufous hummingbird.

I arrived about 11 a.m., set up a remote-controlled cage trap on Debra's back deck, and within 15 minutes had caught the hummingbird, which was clearly a *Selasphorus*. However, when I removed the bird from the mesh holding bag and saw the very narrow outer tail feathers (R5s) I immediately suspected Allen's, and all measurements were subsequently

double- or triple-checked. I also pulled one each R5 and R2 as voucher specimens, which I have retained under BBL permit #22918. (Photos below.)

Measurements and plumage characteristics confirmed that this was Pennsylvania's first state record ALHU, which averages smaller than rufous (RUHU), with narrower R5 and little or no notching on R2, all of which were seen in this bird. Except as noted, all age/sex and ALHU/RUHU measurements are from P. Pyle, *Identification Guide to North American Birds*. vol. 1, 1997. Measurements were taken in accordance with Russell and Russell, *North American Bander's Manual for Banding Hummingbirds* (2001) North American Banding Council.

Age and sex: Age as adult was based on lack of bill corrugations (below). Given the bird's age, sex was based on plumage (lack of full gorget, as well as blunt, all-green R1 central rectrices, which would be rufous/black, long and narrow in an adult male).

Wing chord: Female ALHU range from 36.2-43.3 mm, but there is considerable overlap with RUHU (38.1-46.6mm in females). This bird was near the upper range for a female Allen's, but the wing chord is not diagnostic. The wing was measured with a digital micrometer (.00mm) from bend to tip of P10.

Tail: Again, tail length is on the upper range for female ALHU, but (again) due to overlap (21.9-25.9 mm in ALHU, 22.5-28.3 mm in RUHU), this measurement is not diagnostic for species ID. Tail was measured with a thin plastic millimeter rule, insert to the base of the central rects and measured to the tip.

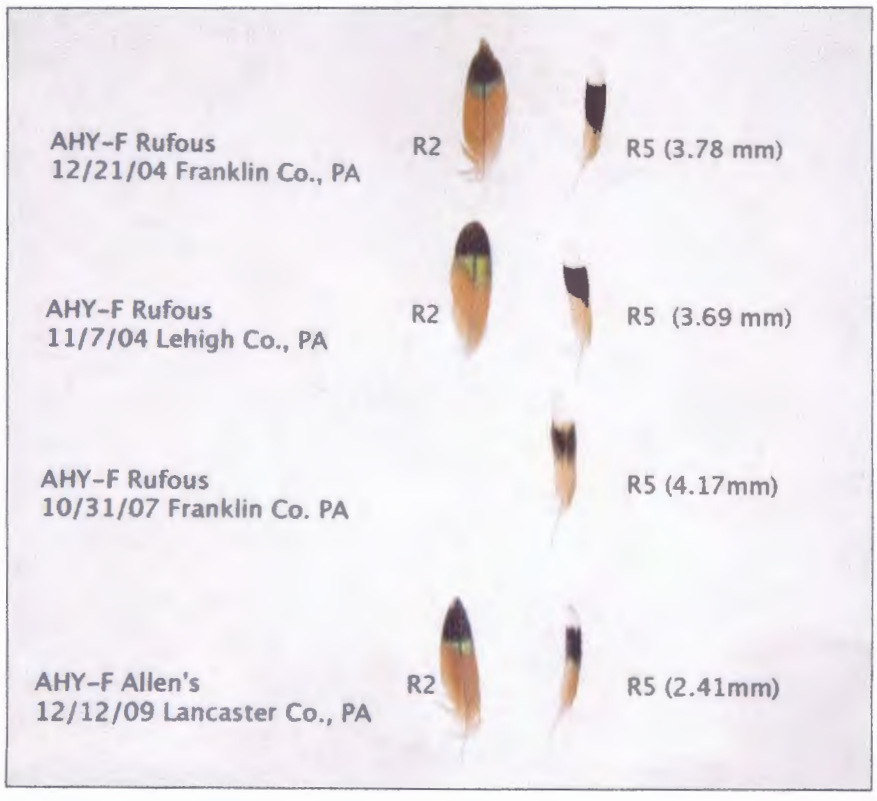
Exposed culmen: Well within the mid-range for Allen's, but the overlap between species is so close this measurement is useless for distinguishing species (14.0-18.8 mm ALHU, vs. 14.4-19.0 mm in RUHU). Culmen was measured with a digital micrometer (.00mm) on the dorsal surface of the maxilla, from the front edge of feathers to the tip of the bill.

Maxilla grooving: HY (hatching year/immature) hummingbirds have extensive, shallow corrugations extending the length of the maxilla, which diminish as the bird ages; by the following spring, <10% of the bill, usually by the nares, retains grooving. In some hummingbirds these vestigial grooves remain for life. This bird's smooth maxilla with very limited (5%) nares grooving clearly indicated an adult, although no more precise age is possible. (Refs.: Ortiz-Crespo, *Auk* 89 [October 1972] 851-857; Yanega, Pyle and Geupel, *Western Birds* 28 [1997] 13-18)

Gorget feathers: Female *Selasphorus* usually develop a central gorget patch of iridescent feathers -- 15 of them, in this case. At this time, it is not known if the extent and size of the gorget patch can be used to refine adult ages, although there is some speculation that the patches increase in size with age.

Weight and fat score: 3.36g is a good, healthy weight for a female *Selasphorus*, while a fat score of 1 indicated a bird not in immediate pre-migratory condition, since fat is usually only laid on in significant amounts (fat score >3) before departure.

R5: The width of R5 is considered the gold standard for distinguishing ALHU and RUHU (see comparison photo). The width of R5 was measured with a digital micrometer (.00mm) at a point 5mm from the tip, in accordance with Russell and Russell; extreme care was taken not to compress the feather while measuring. Before measuring, feather wa removed f



the bird, held by the base and "flicked" with a finger several times, which snaps the feather to its natural shape.

In ALHU, R5 is very narrow, although this varies with age and sex class, becoming narrower in adults, and always narrower in males vs. females. In adult female ALHU, the width is 20-2.8mm, vs. 2.7-4.0mm in RUHU - thus, the 2.41mm width is well within the ALHU range, and too narrow for a RUHU.

R2: Another characteristic used to help distinguish ALHU and RUHU is the latter's usual emargination (also referred to as "notching" or "nippling") of the tip of R2. The presence of significant emargination usually indicates RUHU, although adult Allen's may exhibit some slight emargination, especially on the outer web of the feather. (G. Stiles, *Condor* 74 [1972] 25-32). The Leola bird exhibited minor emarginatio n on the outer webbing of R2, well within the bounds for an adult female ALHU.

Photo of tail, following removal of R2 (left) and R5 (right). Very slight emargination can be seen on R2 (third feather from right). (Scott Weidensaul)

Close-up of R2 and R5 from the ALHU 12/12/09, showing just a hint of emargination on R2, and very narrow R5. (Scott Weidensaul)

Molt: The hummingbird had replaced all of its rectrices, which were scored as "new," but showed clear molt limits in the wings, with the three outer primaries (P10-8) on each wing retained and old, while the secondaries were a mix - S1-3 new, S4-5 old, and S6 new. This is a slightly advanced molt sequence compared with most of the fall/winter rufous I have handled in Pennsylvania. Because ALHU begins breeding California as early as February, such an accelerated molt schedule ma' sense, but this cannot be considered diagnostic as to species.

S. sasin vs. S.s. sedentarius? Allen's hummingbird has two recogn subspecies, *S. sasin sasin*, which occupies most of the species' bre range, and *S.s. sedentarius*, a presumably nonmigratory race four

the Channel Islands, but which now breeds on the adjacent mainland. The identification of a *S.s.sedentarius* specimen collected in Louisiana in 1976, however, shows that this subspecies can wander, and makes it imperative that all ALHU records be reviewed for possible *sedentarius.* (Newfield *Condor* 85 [March 1982] 253-54)

Stiles ("Age and sex determination in rufous and Allen's hummingbirds," *Condor* 74 [1972] 25-32) notes that *sedentarius* is intermediate between *sasin* and rufous hummingbird, making identification difficult. Most of the measurements of the Leola bird are in the overlap between both races - except for the exposed culmen measurement, which at 17.73mm is fine for *sasin* (16-18.6mm) but too short for *sedentarius* (18.3-21.5mm) which Stiles notes has a longer culmen than *sasin.*

It would appear, based on this, that the Leola bird was most likely the migratory *sasin* race, as would be expected.

Departure behavior: The bird was observed by hundreds of birders between Dec. 12-29. In the host's absence, a friend was tending the feeders Dec. 28-29, and reported that the hummer fed very heavily. It was last seen feeding at 1:05 p.m. Dec. 29, after which it flew straight up in the air and disappeared, instead of perching in nearby trees; birders observing it commented to each other, "It's gone," and such was indeed the case.

This is proving to be typical departure behavior for fall/winter *Selasphorus* in Pennsylvania - heavy feeding, followed by a midday departure. Those seen making their final feeding bout are almost always reported to have flown straight up into the air when finished, presumably to gain altitude for migration.

Interestingly, Ohio's first ALHU, banded on Dec. 11, 2009, had departed its location on Dec. 27, two days before the Leola bird, perhaps taking advantage of the same lull between stormy weather. This is also proving to be typical - the hummers hunker down in bad weather, but leave when conditions moderate.

ADDITIONAL PHOTOS

Profile head (Scott Weidensaul)

Dorsum (Scott Weidensaul)

Profile, showing molt limits in flight feathers, including old retained P10–8 and S6 (Scott Weidensaul)

Rump and tail, including slight emargination of R2 (Scott Weidensaul)

Record No: 496-01-2009

Pennsylvania Ornithological Records Committee

Voting Tabulation – Round One

Species: Allen's Hummingbird Selasphorus sasin

Date of Sighting: Late August 2009 to 29 December 2009
County : LANCASTER
Location : LEOLA
Observer(s): Debra Raddenbush, Scott Weidensaul, m.obs

Date of Submission: 2009
Submitted by: Dave Scott Weidensaul, T. Johnson, H. Eskin,B. Moul,J.Bosler,F Haas

Written Description: Yes Photo: Yes Specimen: No Recording: Audio

Member	Class I	Class II	Class III	Class IV-A	Class IV-B	Class IV-C	Class V	
R. Wiltraut	X							
A. Guarente	X							
T. Johnson	X							
B. Coulter	X							
C. Rutt	X							
J. Heller	X							
G. Malosh	X							
TOTALS	7							
DECISION	X							

Comments: 7/0

Signature (Secretary) Nick Pulcinella Date: 7/10/10