Biology 452AA
Quiz 1, Spring 2009

1. Key out specimen A using the taxonomic key. Your answer should include the "steps" you followed to reach your decision (for example: 30A, 31B, 33A, 36B, Order _____) (2 pt)

_____**1B, 5A, 6A, Order E**_____

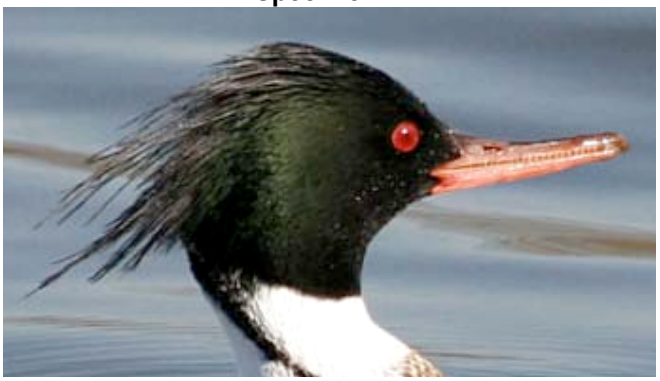
2. What technical term best describes the bill in specimen B? _____**Serrated**_____

3. Circle the alula in specimen C.

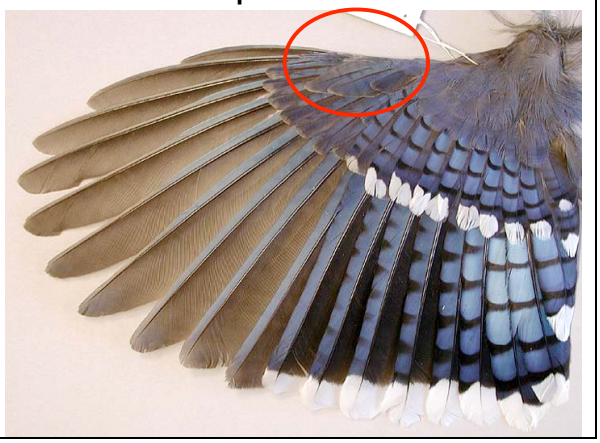
Specimen A – view 1

Specimen A – view 2

Specimen B



Specimen C



Biology 452AB
Quiz 1, Spring 2009

1. Key out specimen A using the taxonomic key. Your answer should include the "steps" you followed to reach your decision (for example: 30A, 31B, 33A, 36B, Order _____) (2 pt)

_____**1B, 5B, 7A, 8B, 10A, Order I**_____

2. What technical term best describes the feet in specimen B? _____**Syndactyl**_____

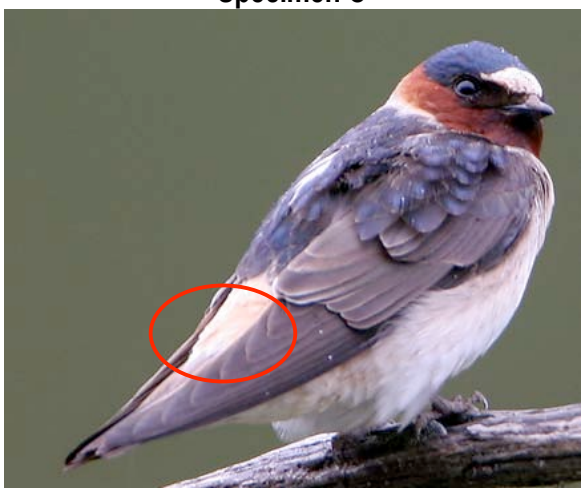
3. Circle the rump on specimen C.

Specimen A – view 1

Specimen A – view 2

Specimen B

Specimen C



Biology 452AC
Quiz 1, Spring 2009

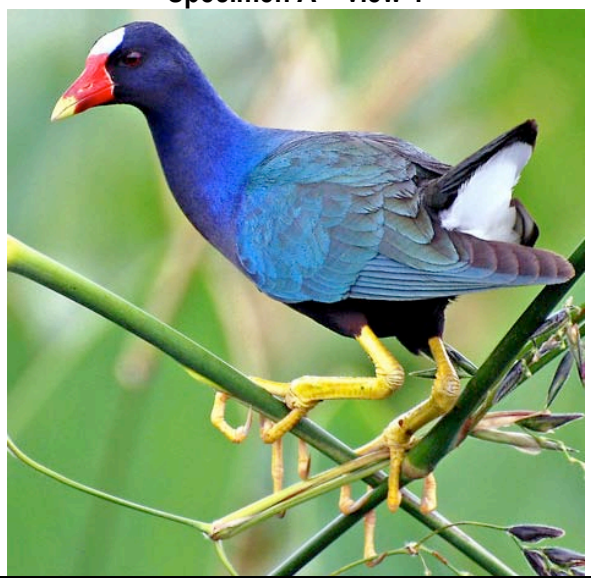
1. Key out specimen A using the taxonomic key. Your answer should include the "steps" you followed to reach your decision (for example: 30A, 31B, 33A, 36B, Order _____) (2 pt)

_____**1B, 5B, 7A, 8B, 10B, Order J**_____

2. List 1 technical term that describes the bill in specimen B. _____**Terete or Decurved**_____

3. Circle the cere on specimen C.

Specimen A – view 1



Specimen A – view 2

Specimen B

Specimen C

1A	Feet fully webbed (extends between adjacent toes)	2
1B	Partial webbing on toes, or none	5
2A	Totipalmate; all toes large	**Order A**
2B	Palmate, front 3 toes webbed; 4th toe very small, if present	3
3A	Tarsus flattened, feet very far back on body	**Order B**
3B	Tarsus not flattened, feet not as far back	4
4A	Narrow bill with a toothed or saw-like edge & hooked tip or flattened with a nail at tip	**Order C**
4B	Bill is sharply hooked, or straight & sharply pointed	**Order D**
5A	Webbing present on individual toes, not between toes	6
5B	Semi-palmate; or no webbing	7
6A	Tarsus flattened; short legs; single lobe on each toe	**Order E**
6B	Tarsus not flat; longer legs; toes are multilobed or scalloped	**Order F**
7A	Legs long relative to body size; toes long & slender	8
7B	Legs shorter relative to body size; toes not long & slender	11
8A	Bill long, very stout & horny; bare patch of skin in front of eyes	9
8B	Bill short or long, tapered to a sharp point	10
9A	Middle toe pectinate	**Order G**
9B	Middle toe not pectinate; entire forehead is bare	**Order H**
10A	Bill long & slender, may be straight, recurved or decurved	**Order I**
10B	Bill taller at base than at tip, shorter, stout	**Order J**
11A	Raptorial feet	12
11B	No raptorial feet	13
12A	Naked cere; tarsus usually bare	**Order K**
12B	Cere hidden in feathers; tarsus & toes feathered	**Order L**
13A	Feet chicken-like; claws strong & blunt	14
13B	Feet not chicken-like but may be strong or weak; variously modified	15
14A	Bill conical, decurved & feathered to the nostrils	**Order M**
14B	Bill strongly hooked; head & neck bare of feathers	**Order N**
15A	Feet small & weak relative to body size	16
15B	Feet medium-sized to large relative to body size	19
16A	Outer 2 toes fused along half their length (syndactyl)	**Order O**
16B	Outer 2 toes not syndactyl	17
17A	Nostrils open in soft, swollen cere	**Order P**
17B	Nostrils not as above; feet extremely tiny	18
18A	Extremely small body	**Order Q**
18B	Medium sized body; 3rd toe pectinate; greatly enlarged eyes	**Order R**
19A	Zygodactyl feet	**Order S**
19B	Anisodactyl feet	**Order T**