

Seasonal Trends in the Nutritive Content of Important Range Forage Species Near Silver Lake, Oregon

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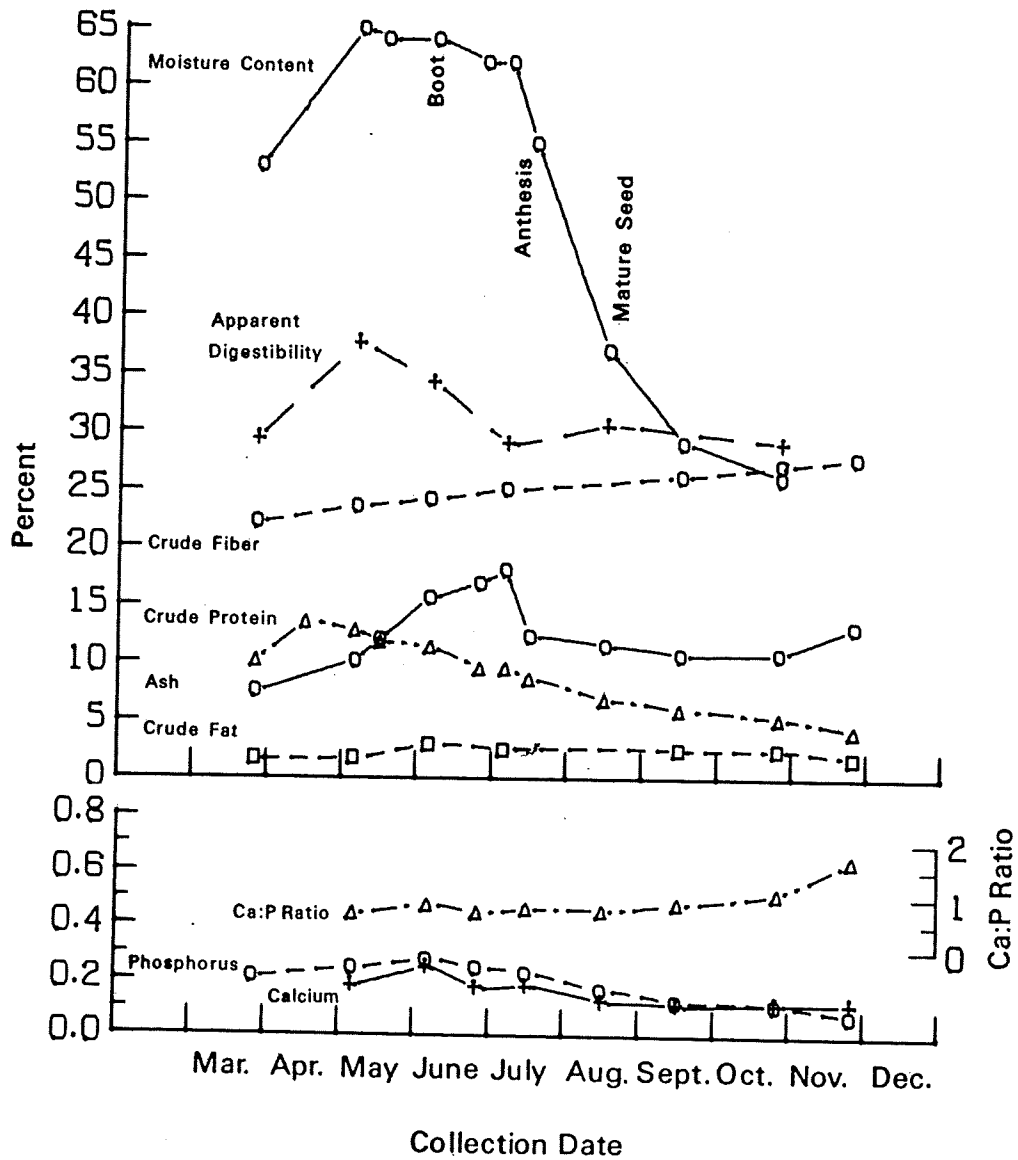


Figure 2.--Seasonal trends of constituents in Idaho fescue (*Pinus ponderosa*/*Purshia tridentata*/*Festuca idahoensis*).

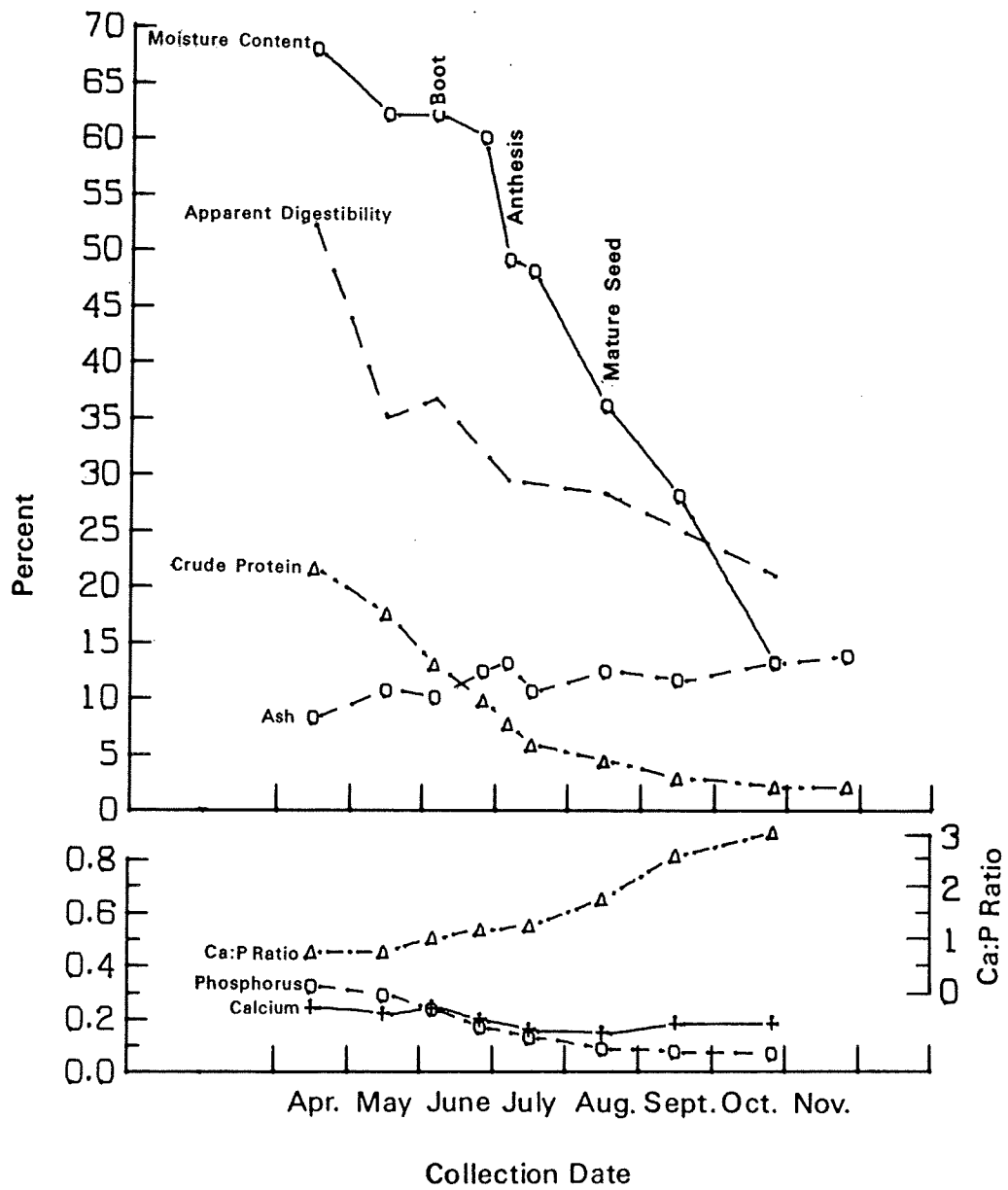


Figure 3.--Seasonal trends of constituents in bluebunch wheatgrass (*Artemisia arbuscula*/*Agropyron spicatum*).

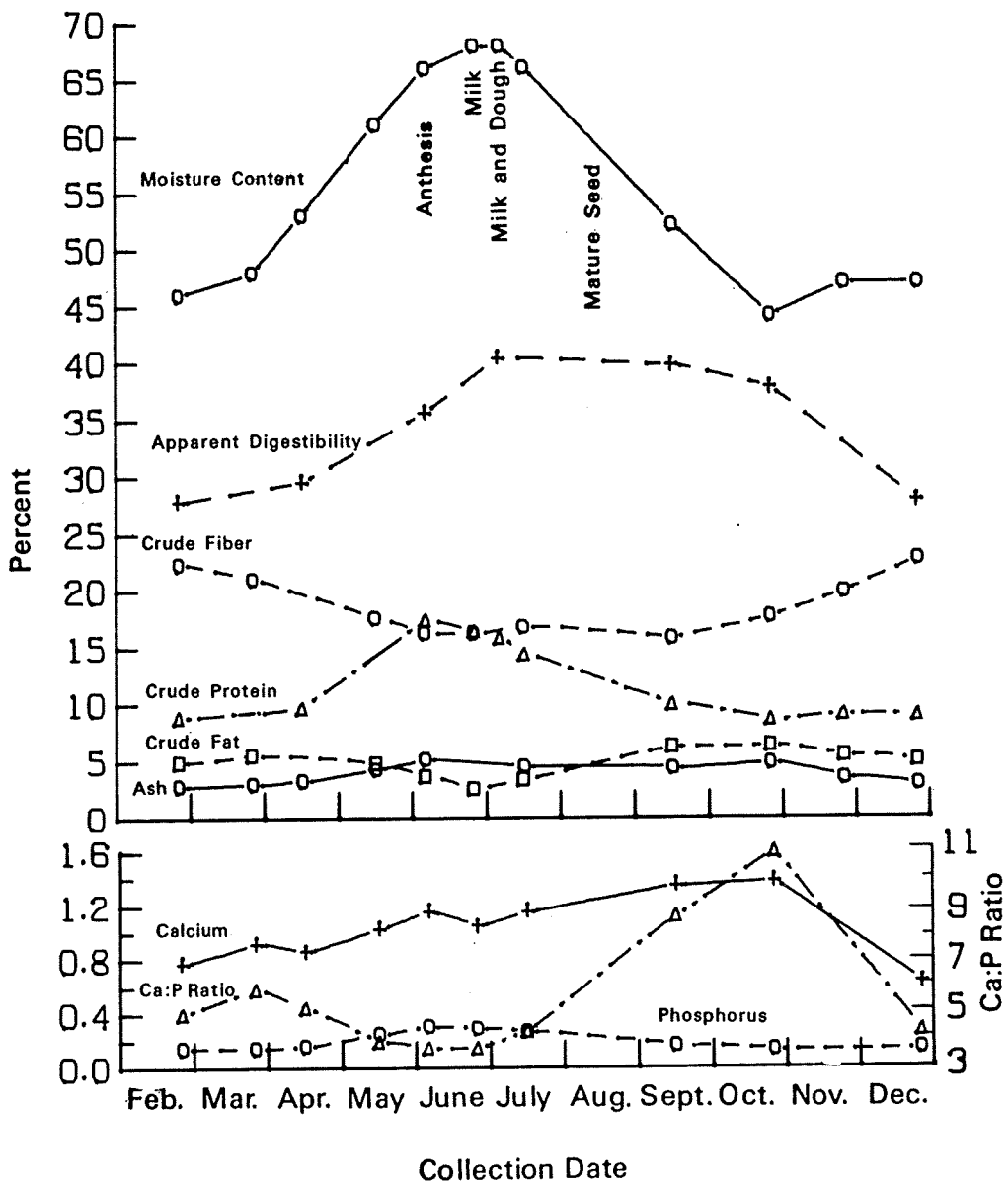


Figure 4.--Seasonal trends of constituents in bitter brush (*Pinus ponderosa*/*Purshia tridentata*/*Festuca idahoensis*).

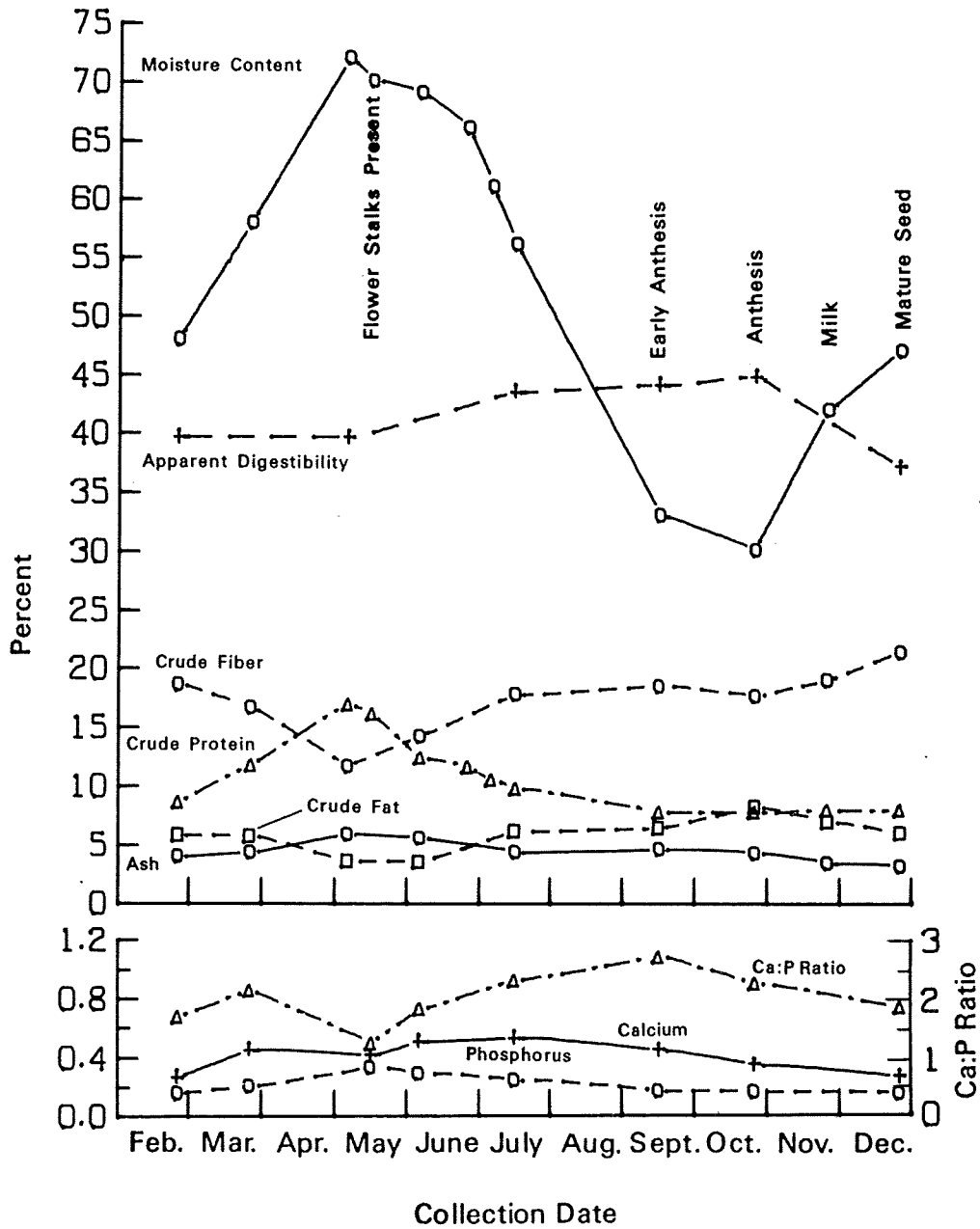


Figure 5.--Seasonal trends of constituents in scabland sagebrush (*Artemisia arbuscula/Poa secunda*).

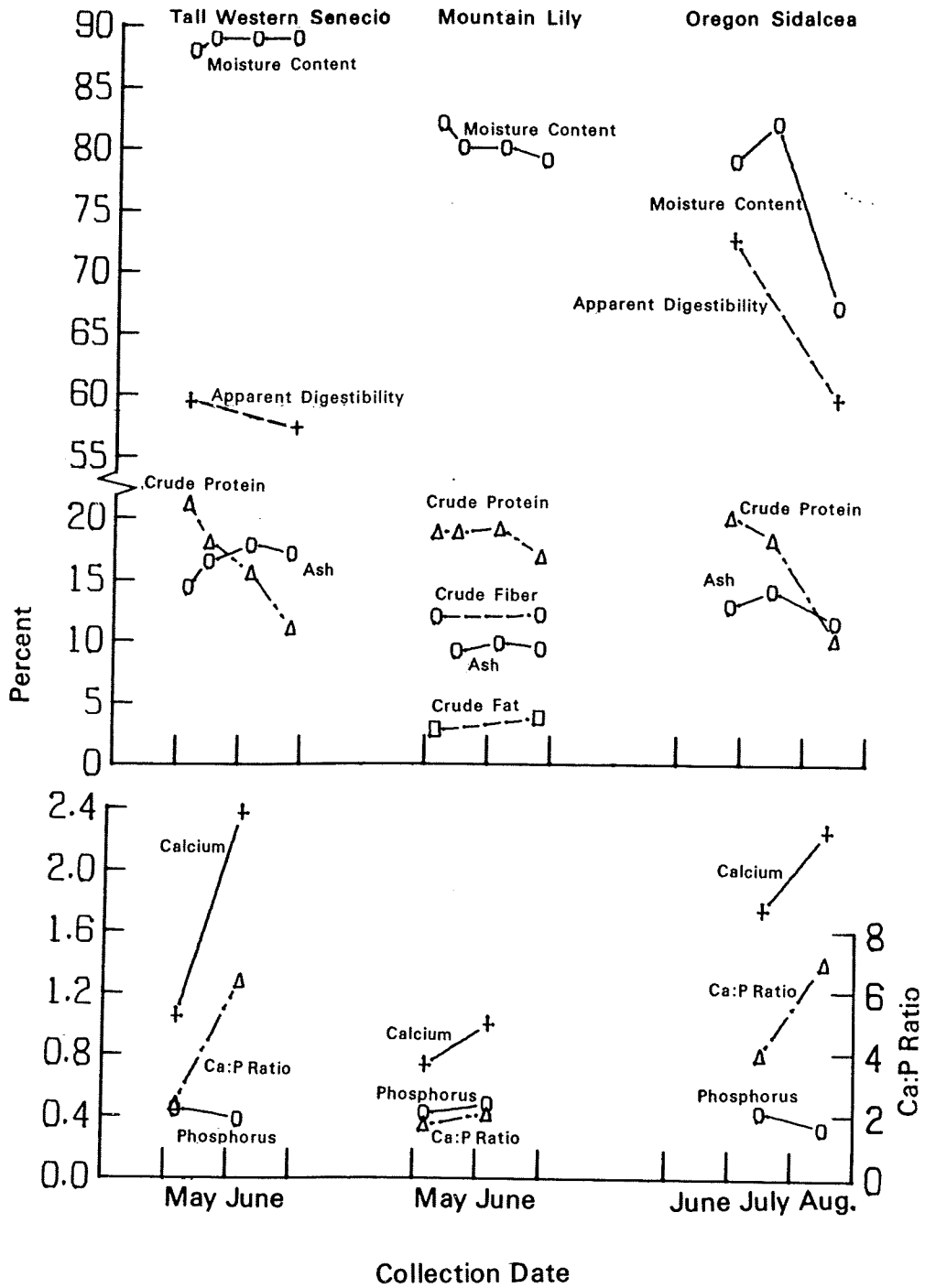


Figure 6.--Seasonal trends of constituents in tall western senecio, mountain lily, and Oregon sidalcea.

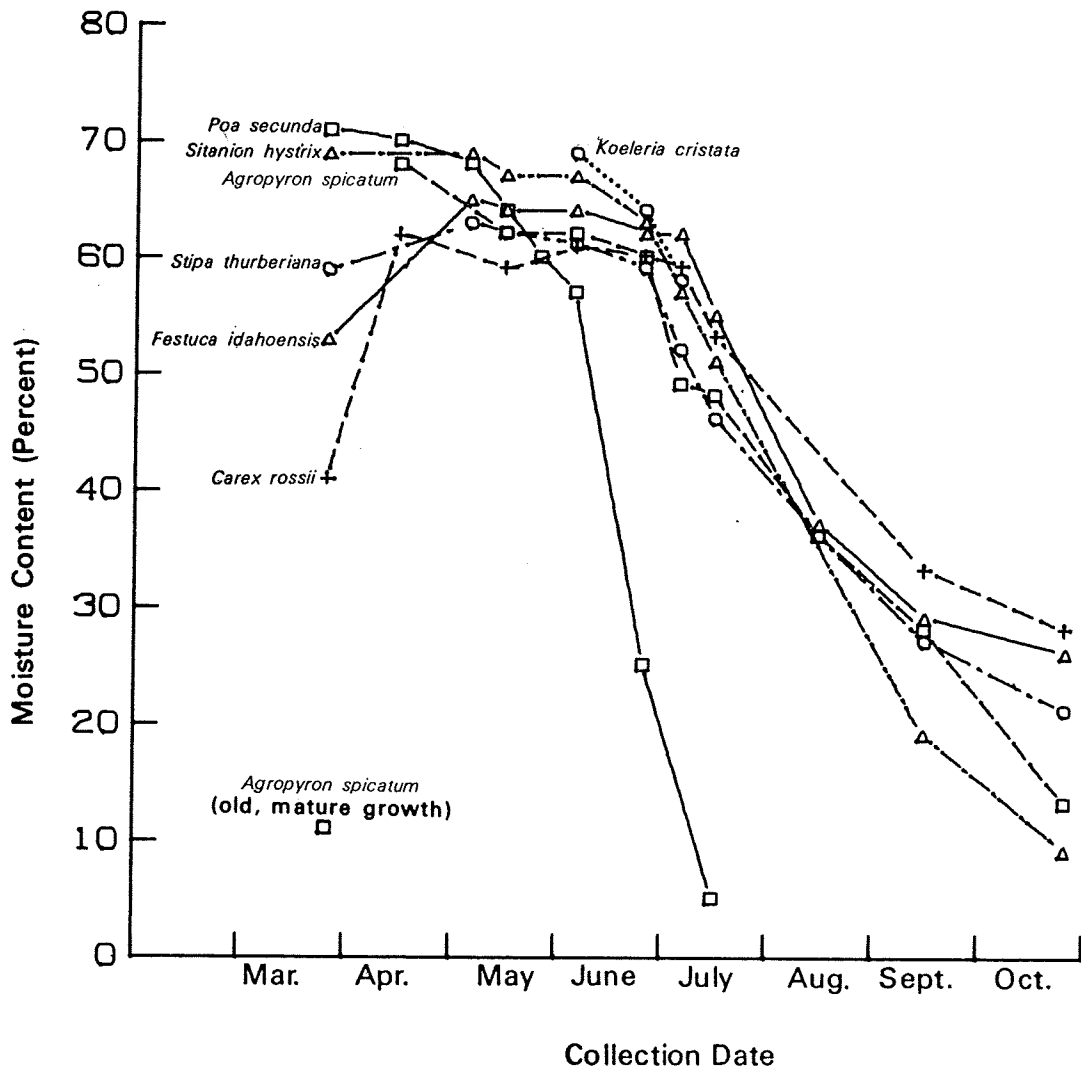


Figure 7.--Seasonal moisture trends in herbaceous species.

Table 2.--Average growth stage of species at time of collection

Species	Mid-April	Early May	Mid-May	Late May	Early June	Late June	Early July	Mid-July	Mid-August	Mid-Sept.	Late Oct.	Late Nov.	Late Dec.
<u>Grasses</u>													
Sandberg bluegrass		boot		late anthesis		mature seed		dry					
Ross' sedge ^{1/}			anthesis		dough	late dough	mature seed?						
Thurber needlegrass			early boot		in head	early milk	late milk	late dough -mature seed	mature seed				
Squirreltail					boot	anthesis	early milk	dough	mature seed				
Junegrass					boot		anthesis						
Bluebunch wheatgrass					boot		anthesis	late dough -mature seed	mature seed				
Idaho fescue					boot		anthesis	dough	mature seed				
<u>Forbs</u>													
Mountain lily					milk	dough							
Upland larkspur													
Tall western senecio		flower stalks			anthesis	post-anthesis		mature seed					
Oregon sidalcea						buds closed		anthesis	mature seed				
<u>Shrubs</u>													
Mountain mahogany	few buds	many buds				late milk	dough	dough	mature seed				
Bitter brush					anthesis	milk	milk-dough	anthesis-milk	mature seed		leaves brittle		
Scabland sagebrush			flower stalks		stalks enlarged					early anthesis	anthesis	anthesis-milk	mature seed
Big sagebrush			vegetative growth		stalks enlarged	flower stalks	stalks enlarged			early anthesis	anthesis	anthesis-milk	mature seed

^{1/} Growth stage determinations were questionable because few seed heads were produced.

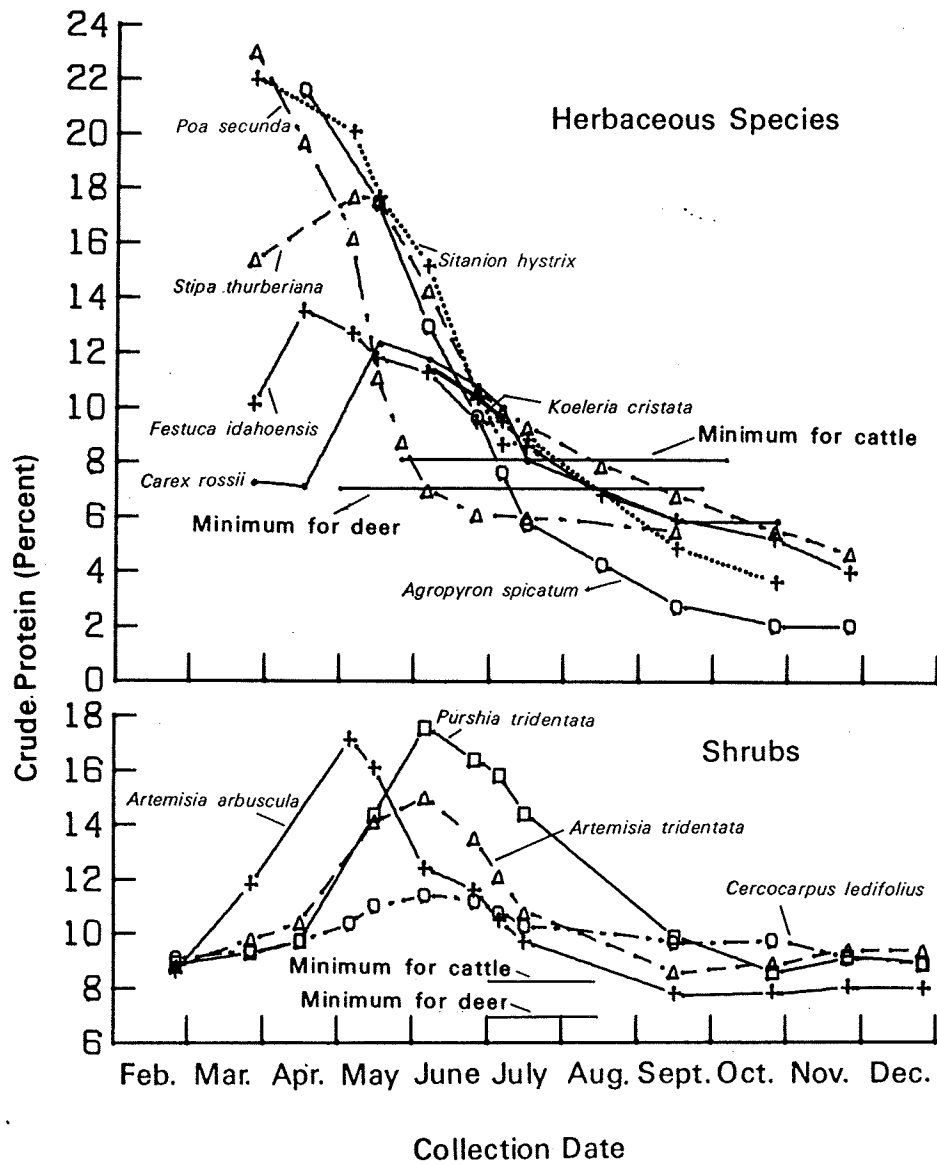


Figure 10.--Seasonal trends of crude protein.

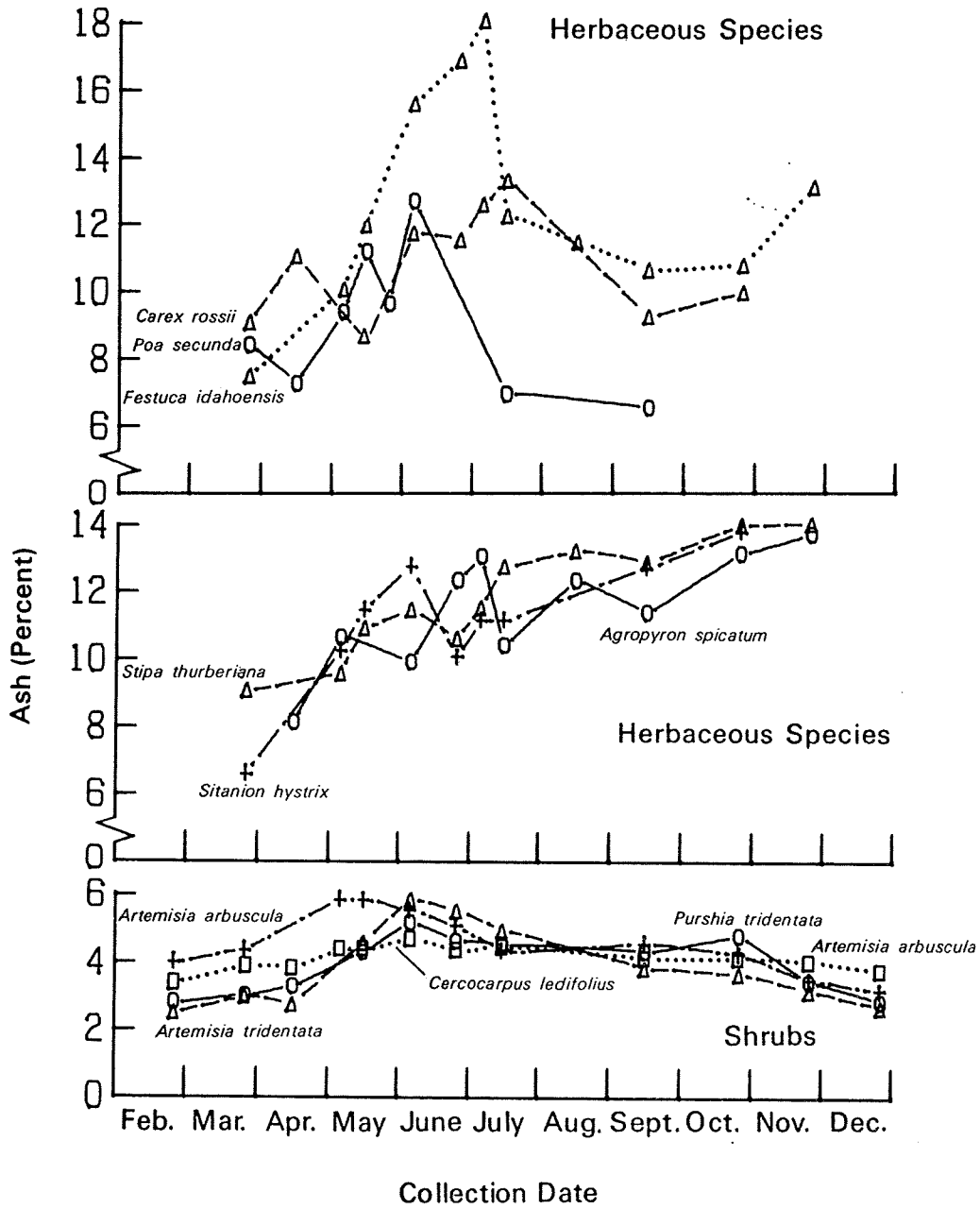


Figure 11.--Seasonal trends of ash (total mineral matter).

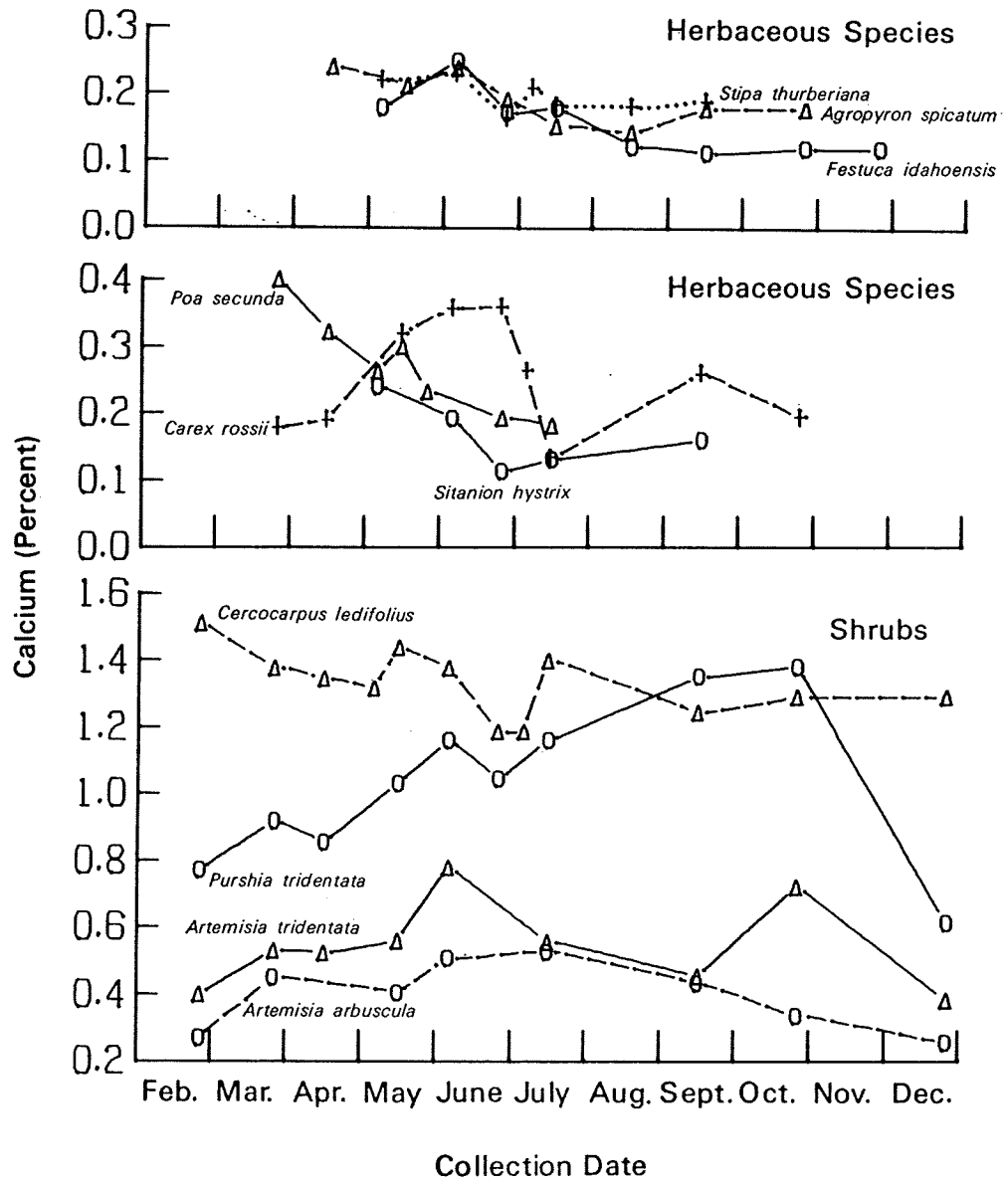


Figure 12.--Seasonal trends of calcium.

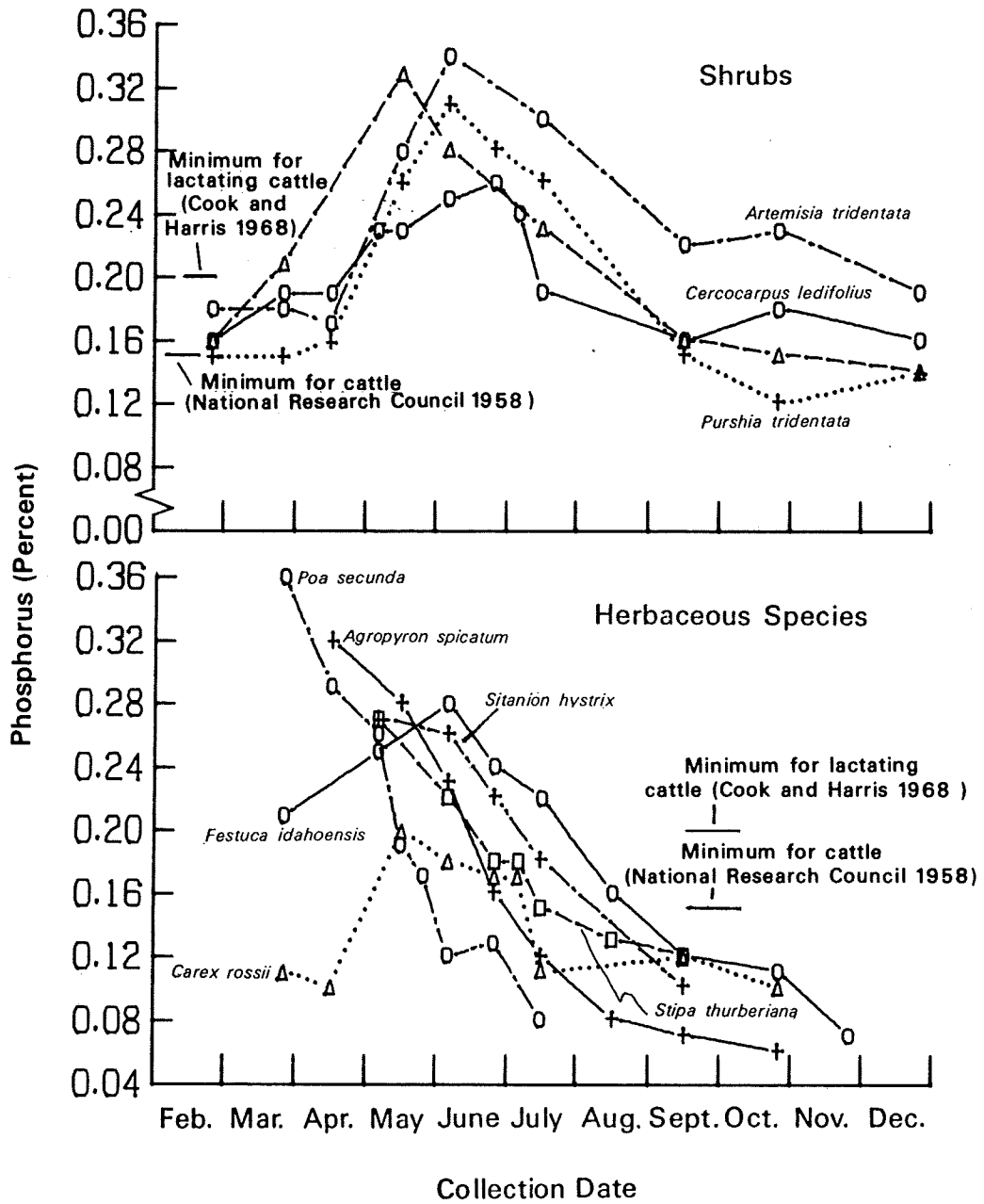


Figure 13.--Seasonal trends of phosphorus.

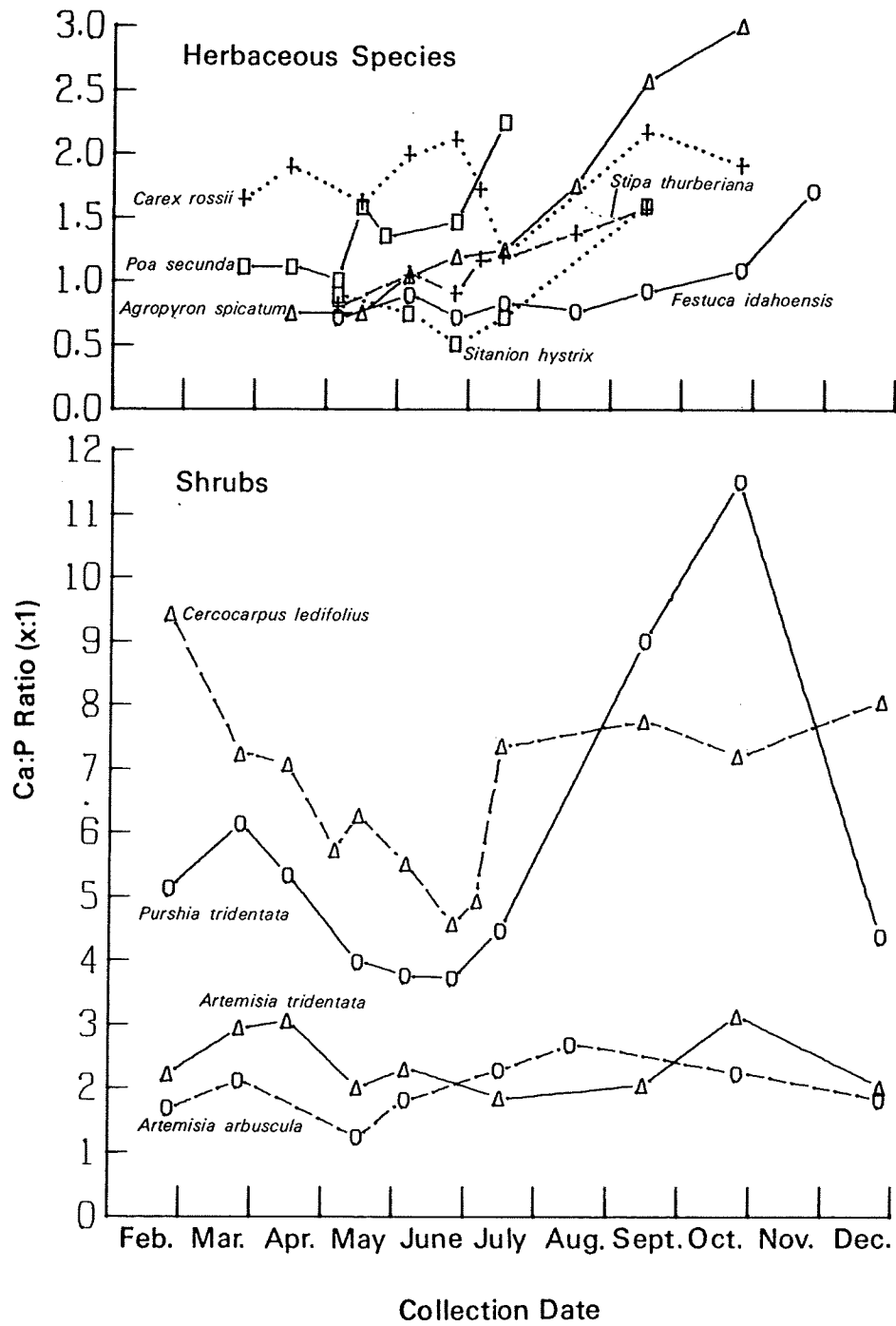


Figure 14.--Seasonal trends of Ca:P ratio.