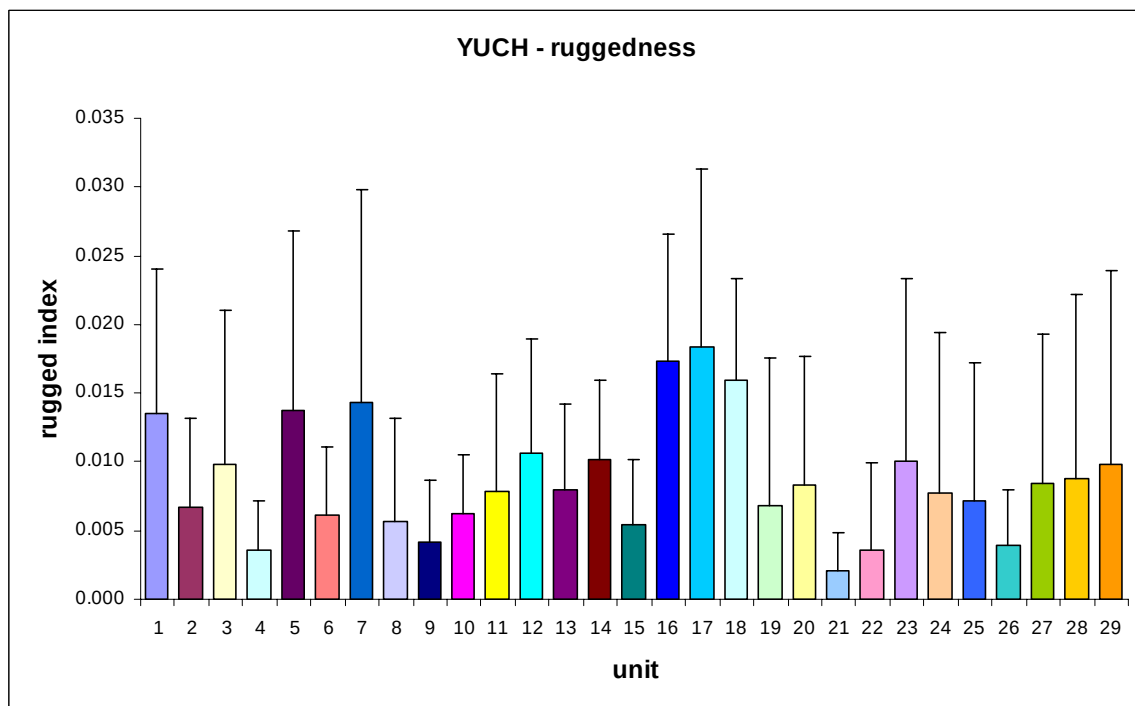
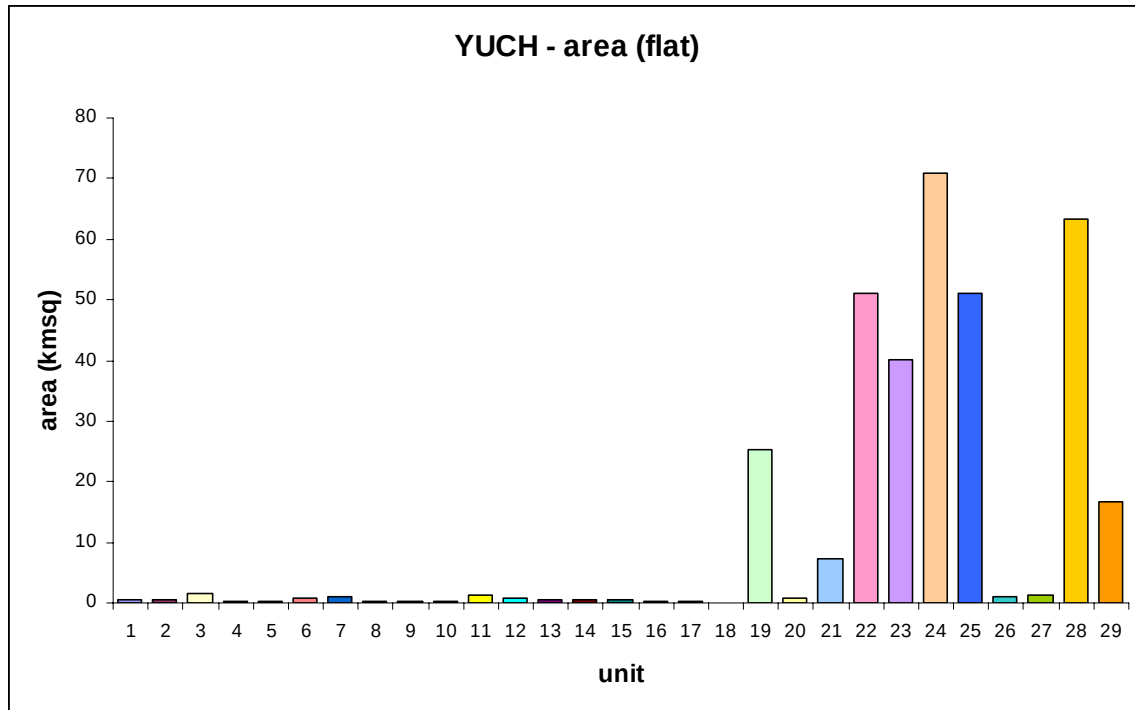


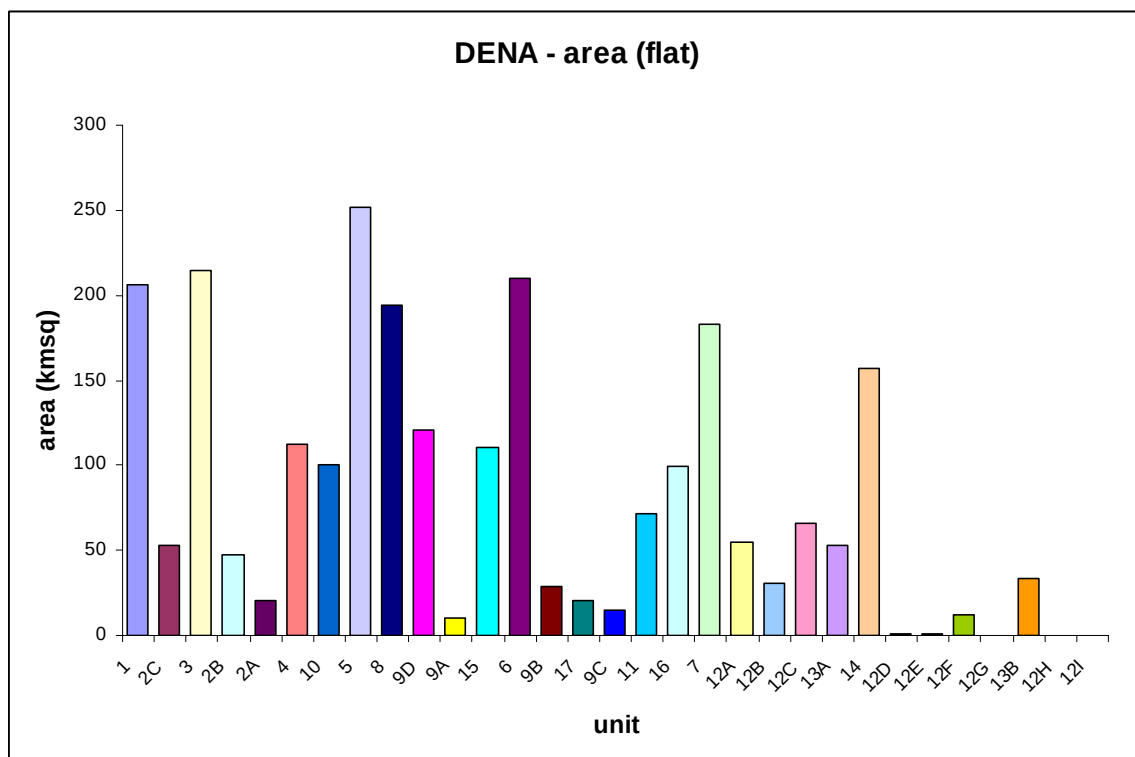
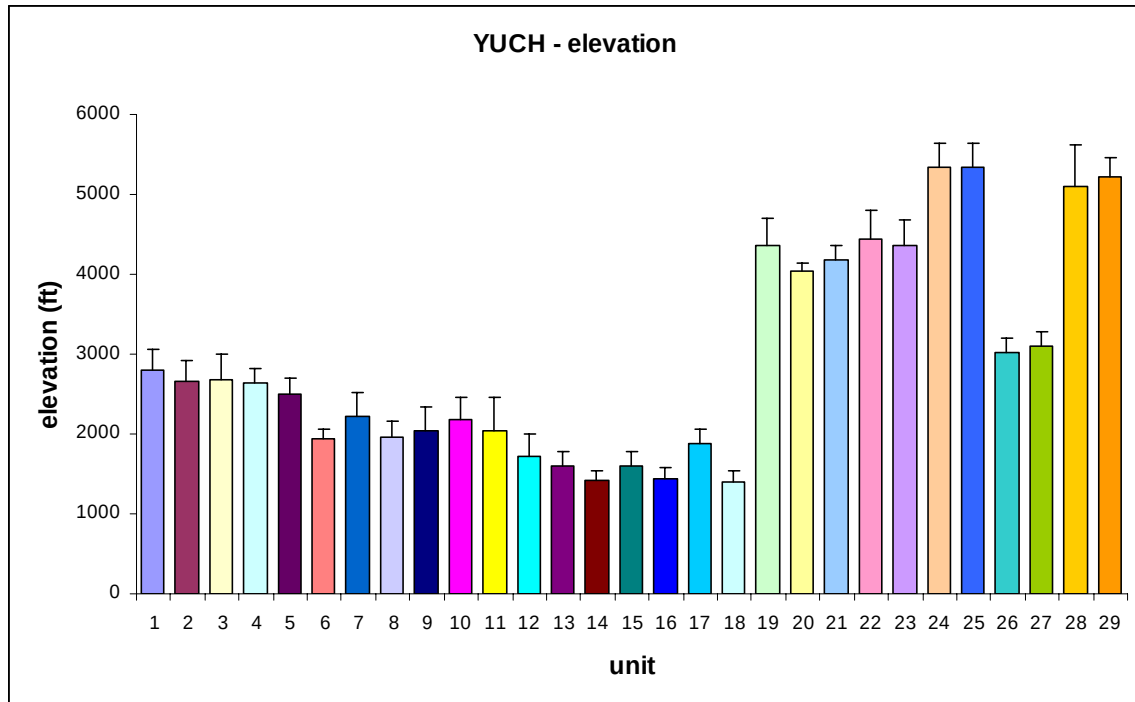
Dall's sheep survey unit – comparisons (June, 2008)

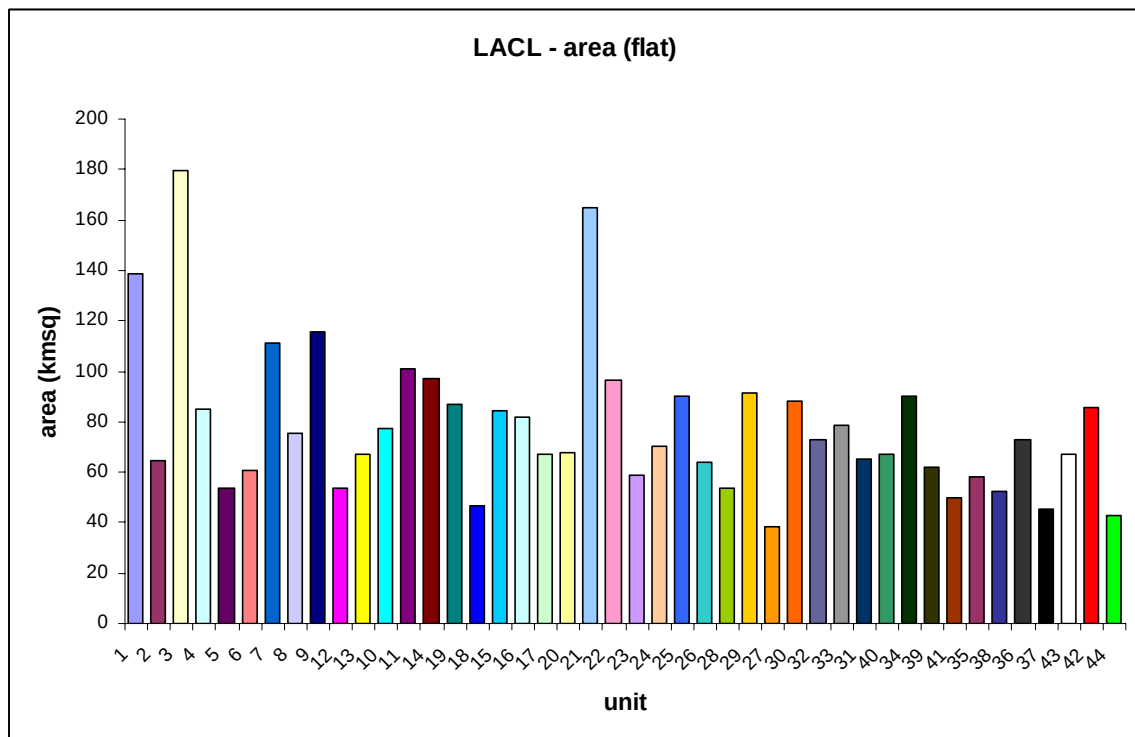
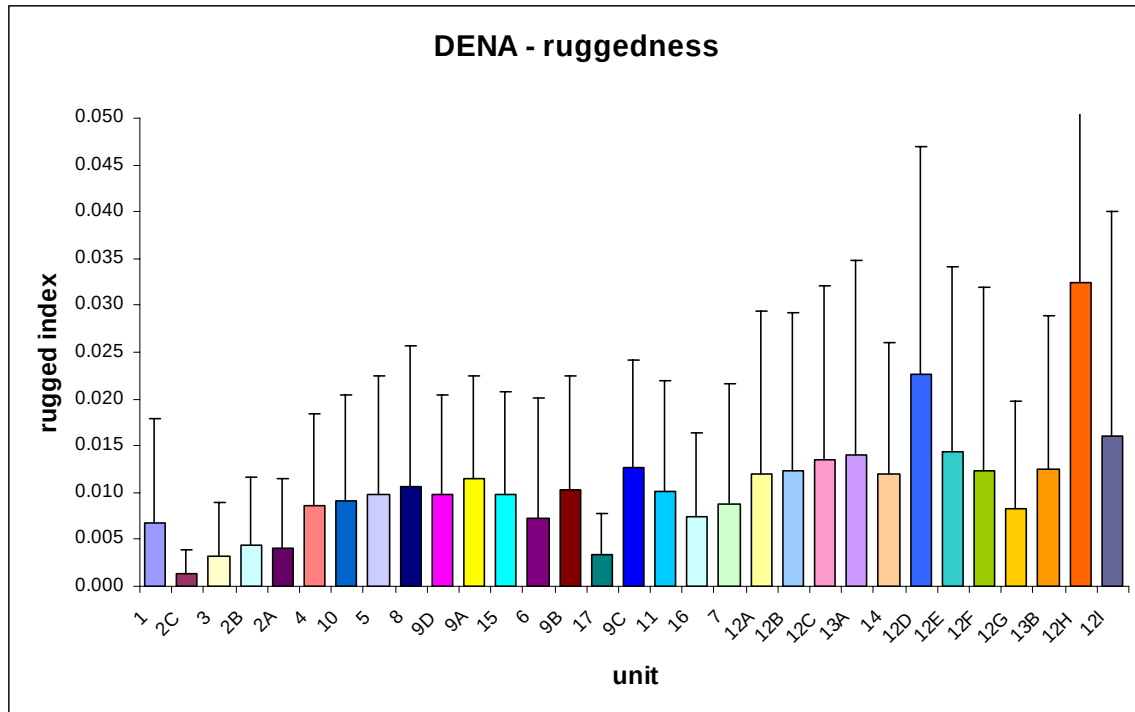
- The map attached represents the survey units designated for each park (WEAR and GAAR combined) to scale in Albers Alaska, NAD 83.
 - The number of units includes subunits. Units are numbered in graphs below (assigned unit names used but not all parks had them – or I couldn't distinguish)
 - Surface area is the area of each unit (km square) in 3D based on 60m DEMs for each park.
 - Total is the sum of the surface area of all units
 - Mean elevation/rugged are the average elevation/rugged of the entire surveyed area
- Survey units use drainages as boundaries except YUCH which appear to use elevation contour (and some specific cliff areas). WRST excludes high mountain peaks/glaciers
- 60m DEMs used for all analyses (10m DEM available for YUCH, 30m DEM available for east DENA, ½ LACL, small section of WRST)
- Spreadsheets with individual unit stats (area, rugged, elev) located in W:\DENA\RoadStudy_06\Sheep survey 2008
- Graphs are means shown with SD
- Ruggedness was calculated using the VRM measure created by Sappington et al. 2007. VRM measures terrain ruggedness using vector analysis to directly measure. Values for AK parks calculated using 60m DEM and 3x spatial grid. Available as a tool for use in ArcGIS on ESRI's help site. (note: make sure your units for your view match your DEM units)

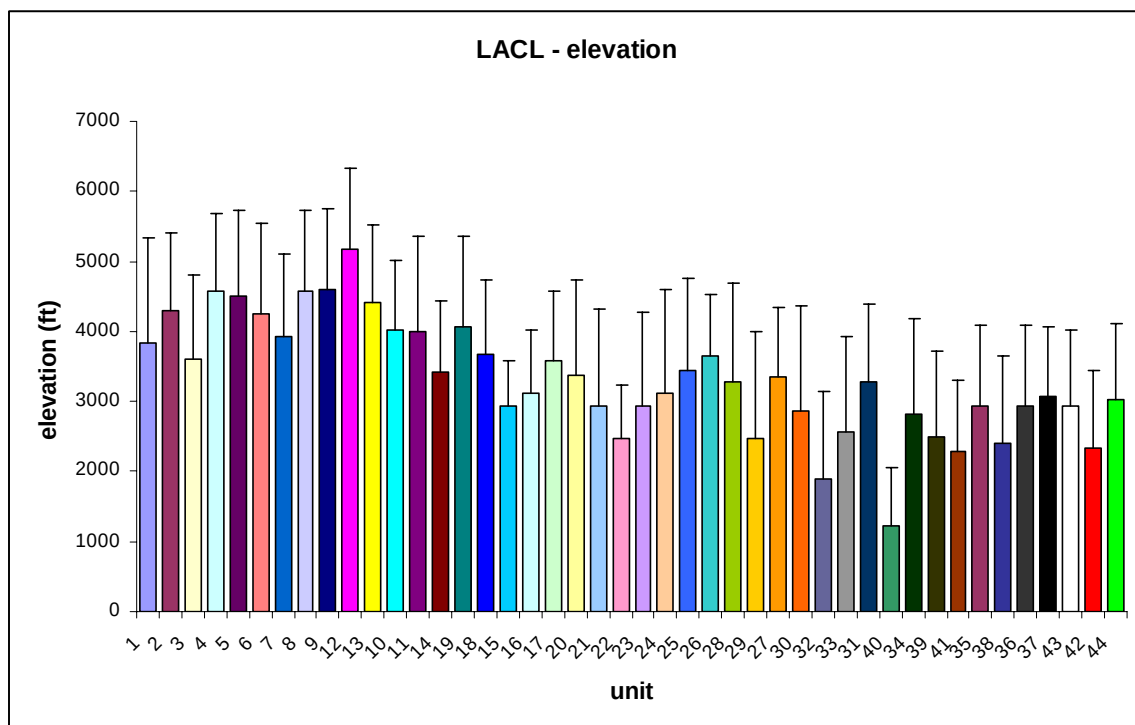
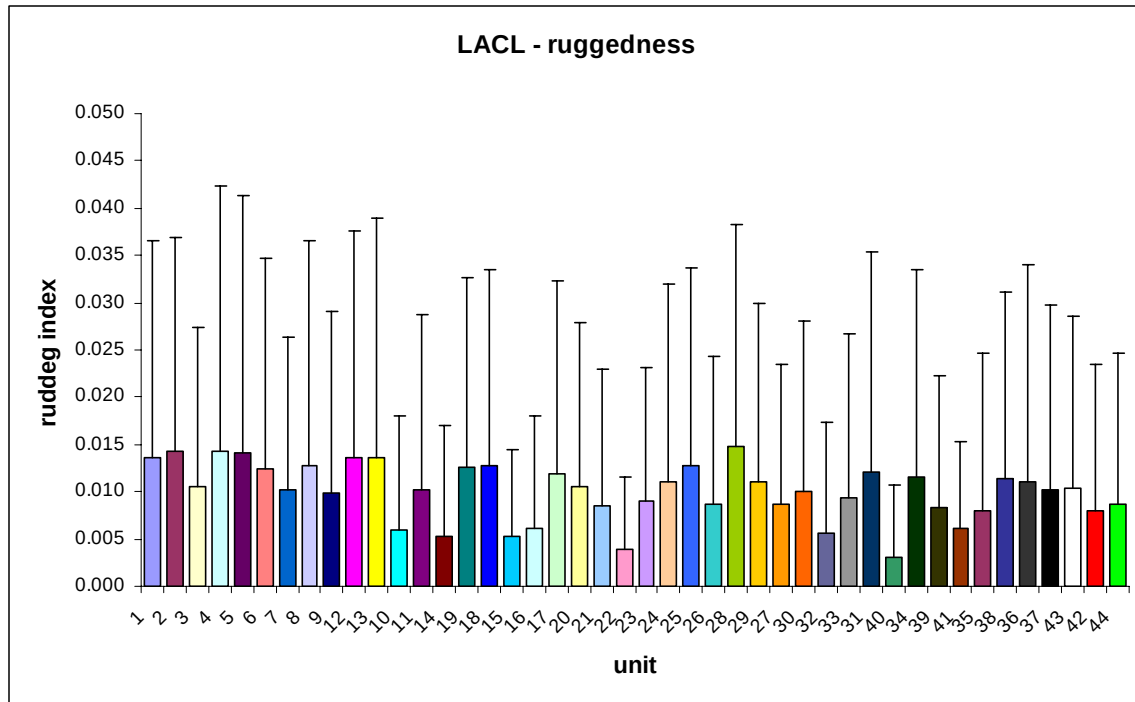
General summary of sheep survey unit characteristics.

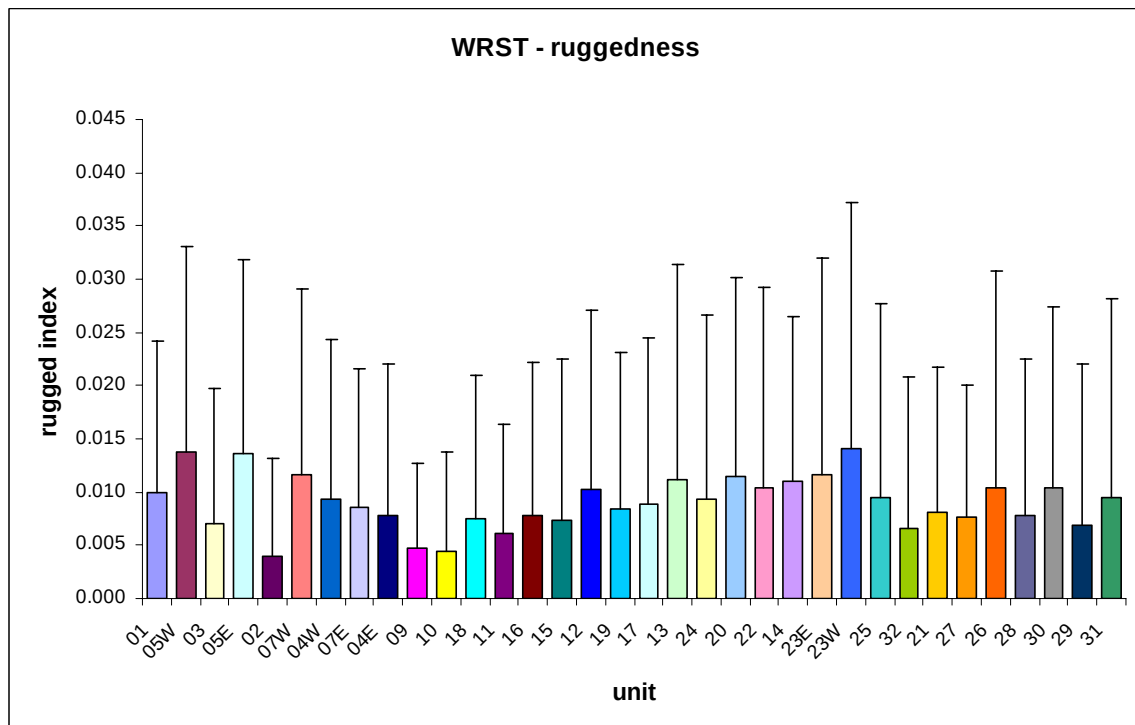
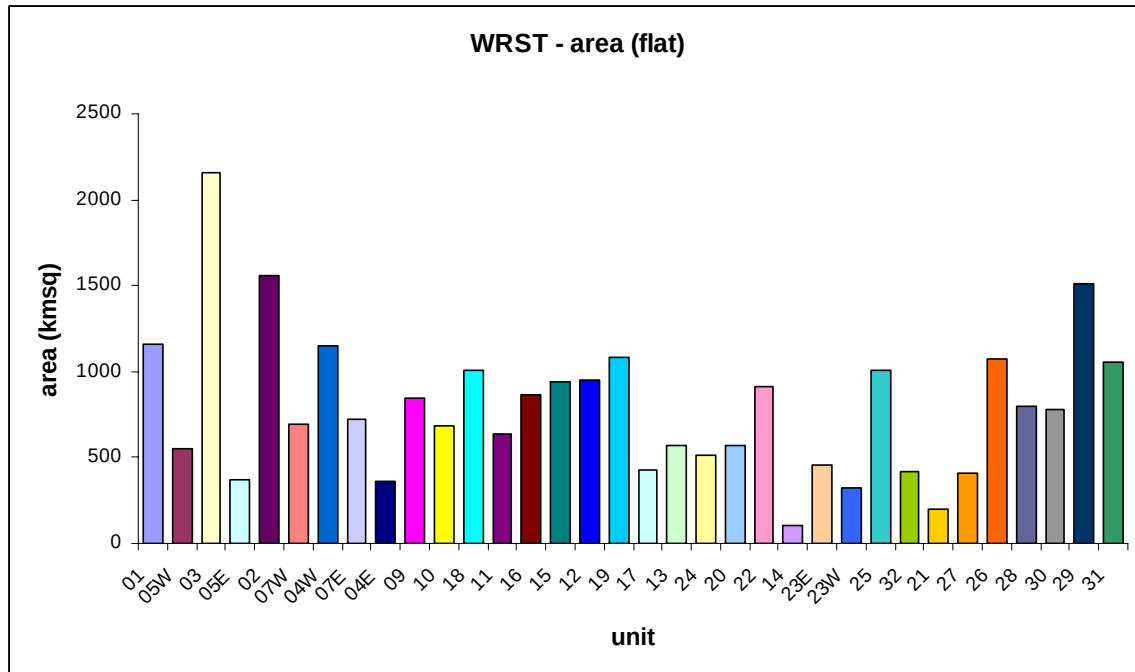
	ARKN	DENA	YUCH	LACL	WRST
No. units	495	31	29	44	34
Surface area (sqkm)					
min	4.6	0.30	0.2	52.2	107.9
max	204	261.2	85.2	200.8	2,275.3
mean	89.9	89.2	13.9	91.3	847.7
SD	33.9	81.1	25.1	30.1	430.8
total area	44,518.6	2,765.6	402.4	4,018.4	28,820.6
Mean elevation (ft), SD	3,070, 1,226	3,999, 999	4,832, 742	3,353, 1,435	5,560, 1,721
Mean ruggedness, SD	0.007, 0.0118	0.0087, 0.0127	0.0075, 0.0115	0.0100, 0.0187	0.0085, 0.0157

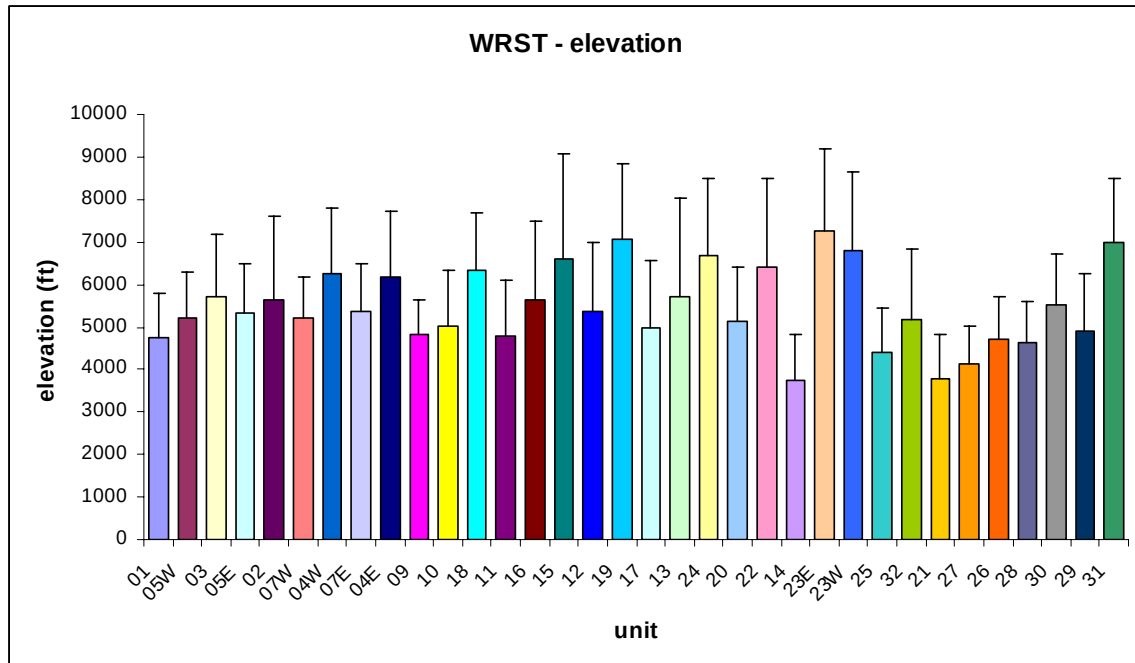




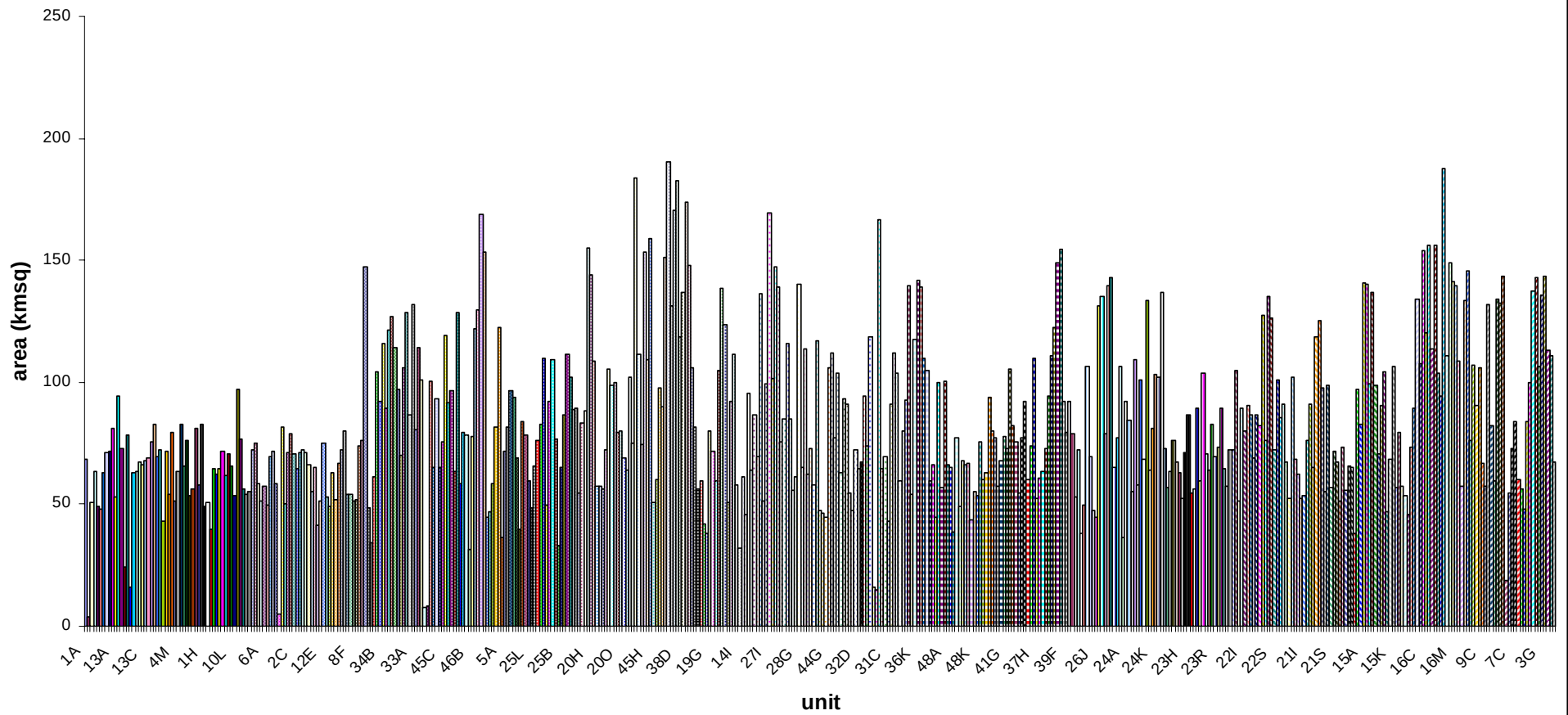




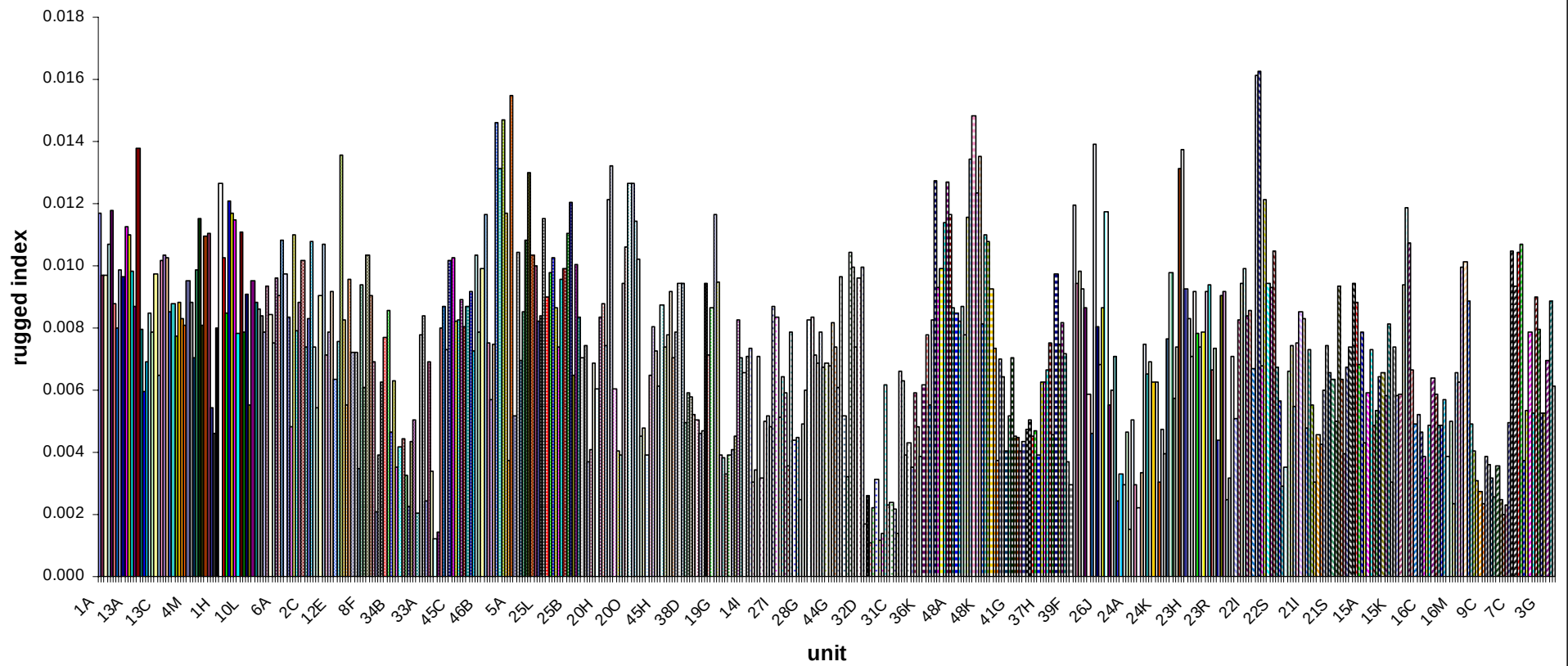




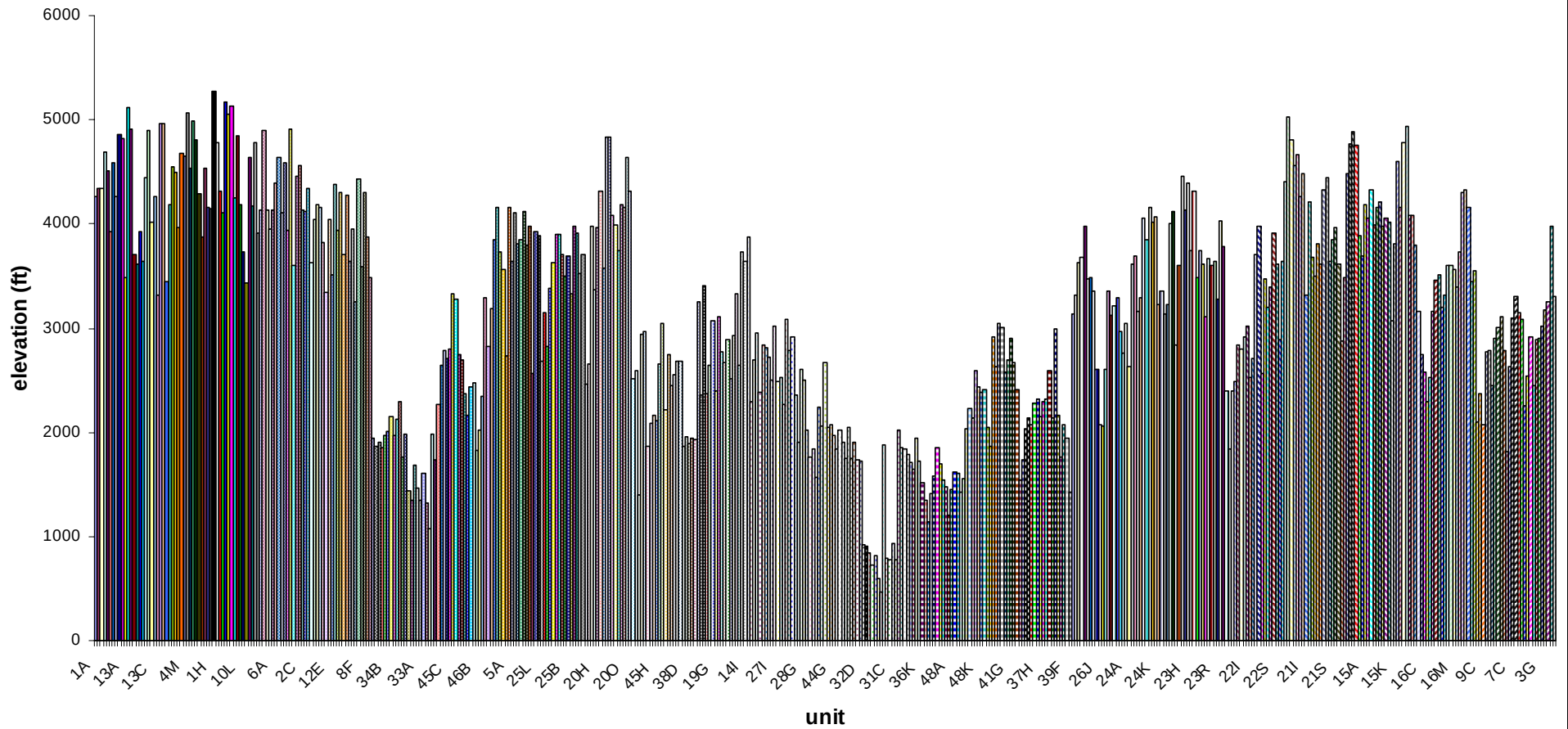
ARKN - area (flat)



ARKN - ruggedness



ARKN - elevation



0 45 90 180 270 360 Kilometers

Dall's sheep survey units - comparisons

ARKN

495 UNITS

SURFACE AREA/unit - sqkm
min - 4.6
max - 204
mean - 89.9
SD - 33.9

Total area - 44,518.6

Mean elevation (SD) - 3,070 (1,226) ft
Mean rugged index (SD) - 0.007 (0.0118)

31 UNITS

SURFACE AREA/unit - sqkm
min - 0.30
max - 261.2
mean - 89.2
SD - 81.1

Total area - 2,765.6

DENA

Mean elevation (SD) - 3,999 (999) ft
Mean rugged index (SD) - 0.0087 (0.0127)

29 UNITS

SURFACE AREA/unit - sqkm
min - 0.2
max - 85.2
mean - 13.9
SD - 25.1

Total area - 402.45

Mean elevation (SD) - 4,832 (742) ft
Mean rugged index (SD) - 0.0075 (0.0115)

YUCH

44 UNITS

SURFACE AREA/unit - sqkm
min - 52.2
max - 200.8
mean - 91.3
SD - 30.1

Total area - 4,018.4

Mean elevation (SD) - 3,353 (1,435) ft
Mean rugged index (SD) - 0.0100 (0.0187)

LACL

WRST

34 UNITS

SURFACE AREA/unit - sqkm
min - 107.9
max - 2,275.3
mean - 847.7
SD - 430.8

Total area - 28,820.6

Mean elevation (SD) - 5,560 (1,721) ft
Mean rugged index (SD) - 0.0085 (0.0157)