## Relationships of Climate and Growths of Abies koreana and Pinus koraiensisin Chiri Mountain, Korea.

Jeong-Wook Seo, Won-Kyu Park<sup>1</sup>, Dmitri Ovtchinnikov<sup>2</sup>
School of Forest Resources, Chungbuk National Univ.<sup>1</sup>,
Institute of Forest, Siberian Blanch of Russian Academy of Sciences<sup>2</sup>

The relationships of climate and tree rings of Abies koreana and Pinus koraiensis growing at south slope and north slope of Chiri mountain in the southern Korea were compared. After crossdating core series (more than 10 trees for each species in both slopes), ring widths were measured. We used both response function and correlation analysis to evaluate the relationships between climatic factors (monthly precipitations and temperatures) and tree growth. The variances explained by the first principal component of Korean fir (44.7%~44.9%) were higher than those of Korean pine (32.8%~34.5%). The variances explained by response function of Korean fir (45.9%~53.8%) were also higher than Korean pine ones (33.6%~36.0%).

The precipitation response functions of Korean fir were similar at both sites; positive for March-May and negative in February. South-slope Korean fir has more negative temperature response function than north-slope one. The temperature response functions of Korean pine were positive in most months at south slope, but was positive only for January-March and August in north slope ones.