

Anst offijciel vescade Grotto trin to bend area
 the lava tubes of the bend erea of（reron（see CClt \＃2）．Aside irom e minor alter－ cation vith the lex in lecirond ：nd the necessitv for checkinp section merkers in a snowsters every fen mirutes for the last ll miles，the trin was uneventful until we arnrozched our íirst target，skeleton vi ve，at about 3：30 Af．Then an eerie lisht apreared thrcuph the trees atout l0＇o！f the firund．is we a：rroached，it ponolved into ：Luler．en lintern，bi leaced atop；ear on Gene fanson＇s car．＂he occurents， hovevcr，were nowitera to we jound and be were in nc anod to hunt，them un．＂hil grabbec his sletring beg and headed for t．e cevn to ret out of the slept $=$ the oth $=$ ers here loo tired to get cut ol the crr
wone threc hours later se kere anikened ble startled shout from the fenths of the cive $=$ the fortili nd－vencouver contingent of Henson fnd Sunt．Hiort of Fort Vencouver． $\mathrm{N}_{0}, \ldots$, on had anakened and stumbled over Fhil on their woy out．As we were breakfasting，Johnellis Jones and snother icuntifinear friend drove in from Seattle。

Skeleton Ceve，which we explored and mepred，is a liva tube about 50co＇lonp， with interesting lava flow patterns．Cnly one branch nassage exists，enterinf the main tube about hali way in．Here wis lound the fossil bear which pave the cave its name。 Hjort，viih wide experience in the lava tubes of liawaii，nointed out repeatedly examples，of the different natterns of lava flow．

Un emerging，we found lioil．＇i＇onseth，Fort lock lis strict dianper，who subsecuently acted eis our guide，bwaiting us．Following his truck，the cavalcade herded for Arnold Ice Céve，a small remnent of a lave tube which was formerly the source of ice for the city of Bend ntered throuph a smell hole leading to in almost verticel slope of ice，foderately expert rone \％ork is renuired．

A short distance away is ind Cave， $5000^{\circ}$ of extremely rouph floor and many freat piles of rock，with meny impressive chambers of a size rarely encountered in limestone．i＇he portion of the party which reached the rear found a few names indicsting the contrery to local oninion，the cave had been completely exminteत before。 $\mathrm{Cf}^{\prime}$ interest in this cave were small ice stalagmites prowing beneath a hole in the roof．
＇Ihe next target was to be Verrick Ceve，some 25 miles to the south．The storm， however，had reduced the roade to the point where lopging trucks were stuck in the mud，so the second car from Seattle dronned out to head for Crater Lake，and the others bunked in at Cacin Lake Ranger Station．Surveyors Ice Cave was still snowbound．

South lee lave，visited efrly the noxt morning，was found to he at the critical point for ice deposits and held werthy of meteorolopicel study．The 300＂of the wajor end wis explored，and the ice domes，lake and stalactites well rhotorrenhed，
here the tharty disbended for the long rull back，＇＇he Vencouver＝fortlend car， hovever，visited the fort sock inhelter are before returning，It was folt thet despite the weather and the distances involved thet the trip vas weil worthuhiae and the area most interesting．Future trins to others of the miny caves in the area are planned．

